SESA TOOLS

2018 - 19

CATÁLOGO - TARIFA
CATALOGUE - PRICE LIST
CATALOGUE - TARIF




RESPONSABILIDAD - ESFUERZO -
SERVICIO
HONESTIDAD
COMPROMISO
SOSTENIBILIDAD - PROFESIONALIDAD -

Estimados clientes, amigos y colaboradores,

Con el lanzamiento de nuestro nuevo **CATALOGO TARIFA SESA TOOLS 2018-2019**, volvemos a saludarles y aprovechamos esta ocasión para agradecerles la **confianza** mostrada en el transcurso de estos años de colaboración en el **desarrollo** de nuestros negocios y que nos anima a continuar con nuestra vocación de facilitarles una alta **calidad, innovación** continua y un elevado nivel de **servicio**, aportando una gran **diferenciación** y una alta **competitividad.**

En **SESA TOOLS** hemos incorporado a nuestra gama de productos, que se plasman en este nuevo catálogo, importantes innovaciones **tecnológicas** dirigidas al sector **industrial**, con nuevos diseños de nuestras herramientas de **fresado** y **roscado**, y nuevos **recubrimientos**, que aseguran que nuestras herramientas y servicios ofrezcan al usuario un **alto rendimiento**, una **mayor duración** y una alta **rentabilidad**, respondiendo de esta forma a lo que Uds. esperan de nosotros. Estas incorporaciones han contribuido al nacimiento de una nueva familia en el **CATALOGO TARIFA SESA TOOLS 2018-2019**. Una nueva pestaña, el capítulo de **FRESADO** que amplia nuestras posibilidades de colaboración con Uds.

Lo que Uds. perciben y reciben de **SESA TOOLS** sólo es posible con la participación de un gran **equipo humano** que, muchas veces en contacto directo con Uds. y otras muchas desde los departamentos con menos visibilidad, está comprometido con la apuesta con nuestros valores de **calidad, innovación y servicio,** y siempre dispuesto a ofrecer la respuesta más **profesional e inmediata** a sus necesidades.

La **red de ventas de SESA TOOLS** y sus **colaboradores**, entre los que les contamos a Uds., contribuyen a nuestra evolución, trasladándonos sus inquietudes y propuestas. Estamos atentos a ellas, **aprendiendo y esforzándonos e invirtiendo** nuestros **recursos** en mejorar y adaptar **nuestra forma de hacer** para satisfacerles. Nuestra mayor satisfacción es la aprobación que Uds. demuestran con su **fidelidad** y la **confianza** que diariamente depositan en nosotros.

SESATOOLS 2018-2019 asegurando al máximo el rendimiento.
Especialistas en herramientas de corte y roscado desde 1994

Caros clientes, amigos e colaboradores,

*Com o lançamento do nosso novo **CATÁLOGO TARIFA SESA TOOLS 2018-2019,** voltamos a saudá-los e aproveitamos esta oportunidade para lhes agradecermos a **confiança demonstrada** no decurso destes anos de **colaboração** no **desenvolvimento** dos nossos negócios e que nos anima a continuar com a nossa vocação de lhes facultarmos uma alta **qualidade, inovação** contínua e um alto nível de serviço, proporcionando uma grande **diferenciação** e uma alta **competitividade.***

*Na **SESA TOOLS** incorporámos na nossa gama de produtos, que se plasmam neste novo catálogo, importantes inovações **tecnológicas** dirigidas ao setor **industrial,** com novas conceções das nossas ferramentas de **fresagem** e **roscagem,** e novos **revestimentos,** que garantem que as nossas ferramentas e serviços oferecem ao utilizador um **alto rendimento,** uma maior **duração** e uma alta **rentabilidade,** respondendo desta forma ao que V. Exas. esperam de nós. Estas incorporações contribuíram para o nascimento de uma nova família no **CATÁLOGO TARIFA SESA TOOLS 2018-2019.** Um novo separador, o capítulo da **FRESAGEM** que aumenta as nossas possibilidades de colaboração com V. Exas.*

*O que V. Exas. notam e recebem da **SESA TOOLS** só é possível com a participação de uma grande **equipa humana** que, muitas vezes em contacto direto com V. Exas. e muitas outras dos departamentos com menos visibilidade, está empenhada na aposta dos nossos valores de **qualidade, inovação e serviço,** e sempre disposta a oferecer a resposta mais **profissional e imediata** às vossas necessidades.*

*A **rede de vendas da SESA TOOLS** e os seus **colaboradores,** entre os quais contamos com V. Exas., contribuem para a nossa evolução, transmitindo-nos as suas inquietações e propostas. Estamos atentos às mesmas, **aprendendo e esforçando-nos e investindo** os nossos **recursos** no melhoramento e na adaptação da **nossa forma de fazer** para os satisfazermos. A nossa maior satisfação é a aprovação que V. Exas. demonstram com a vossa **fidelidade** e a **confiança** que diariamente depositam em nós.*

***A SESATOOLS 2018-2019** garantindo ao máximo o rendimento.*
Especialistas em ferramentas de corte e roscagem desde 1994

Dear customers, friends and partners,

*With the launch of our new **SESA TOOLS CATALOGUE 2018-2019,** we greet you again and take this opportunity to thank you for the **confidence** shown during these years of **partnership** in the **development** of our businesses, which is something that encourages us to continue with our vocation to provide high **quality,** continuous **innovation** and a high level of **service,** providing clear **differentiation** and high **competitiveness.***

*At **SESA TOOLS,** we have incorporated significant **technological** innovations aimed at the **industrial** sector into our range of products, which are reflected in this new catalogue, with new designs for our **milling** and **threading** tools and new **coatings,** which ensure that our tools and services offer the user **high performance, longer life** and excellent **profitability,** thus meeting the expectations you have of us. These additions have contributed to the creation of a new family in the **SESA TOOLS CATALOGUE 2018-2019.** A new area, the **MILLING** section, which expands the number of ways that we can work with you.*

*What you appreciate and receive from **SESA TOOLS** is only possible with the participation of a fantastic **human team** that, many times in direct contact with you and many others from departments with less visibility, is committed to our values of **quality, innovation** and **service,** and is always ready to offer the most **professional** and **immediate** response to your needs.*

*The **sales network of SESA TOOLS** and its **partners,** which includes you, contribute to our progress, as you communicate your concerns and ideas to us. We are delighted to receive them, **learning and working and investing** our resources in improving and adapting our **way of doing things** to address them. Your approval, shown by your **loyalty** and the **trust** you place in us on a daily basis, is our greatest satisfaction.*

***SESATOOLS 2018-2019,** ensuring maximum performance.*
Specialists in cutting and threading tools since 1994

Chers clients, amis et collaborateurs,

*Nous profitions du lancement de notre nouveau **CATALOGUE DE TARIFS SESA TOOLS 2018-2019** pour vous saluer de nouveau et pour vous remercier de la confiance dont vous avez fait preuve au cours de ces années de **collaboration** qui ont permis le **développement** de nos activité, ce qui nous encourage à maintenir notre engagement de qualité, par la fourniture de produits de grande **qualité** toujours **innovants** et d'un niveau de **service** très élevé, faisant ainsi la **différence** et contribuant à une grande **compétitivité.***

SESA TOOLS** a incorporé à sa gamme de produits, présentée dans ce nouveau catalogue, d'importantes innovations **technologiques** dirigées au secteur industriel, avec de nouveaux modèles d'outils de **fraisage** et de **taraudage** ainsi que de nouveaux **revêtements,** qui garantissent que nos outils et nos services offrent à l'utilisateur un haut rendement, une **plus grande durée d'utilisation** et une **grande rentabilité,** répondant ainsi à vos attentes à notre égard. Ces nouveautés ont contribué à la naissance d'une nouvelle famille présentée dans le **CATALOGUE DE TARIFS SESA TOOLS 2018-2019.

*Tout ce que vous offre **SESA TOOLS** n'est possible que grâce à la participation d'une grande **équipe humaine** qui, soit en contact direct avec vous, ou plus discrètement depuis nos installations, s'engage à faire réalité les valeurs de **qualité, d'innovation et de service** sur lesquelles nous misons, et reste toujours disposée à offrir la réponse la plus **professionnelle** et la plus **immédiate** à vos besoins.*

*Le **réseau de distribution de SESA TOOLS** et ses **collaborateurs,** dont vous faites partie, contribuent à notre développement, en nous faisant part de préoccupations et de propositions. Nous y sommes attentifs, nous en tirons des **enseignements,** et nous nous **efforçons et investissons** nos **ressources** afin d'améliorer et d'adapter notre mode opératoire pour vous satisfaire. Notre plus grande satisfaction est l'approbation que vous démontrez par la **fidélité** et la **confiance** que vous déposez en nous chaque jour.*

***SESA TOOLS 2018-2019,** la garantie du meilleur rendement.*
Spécialistes en outils de coupe et de taraudage depuis 1994.

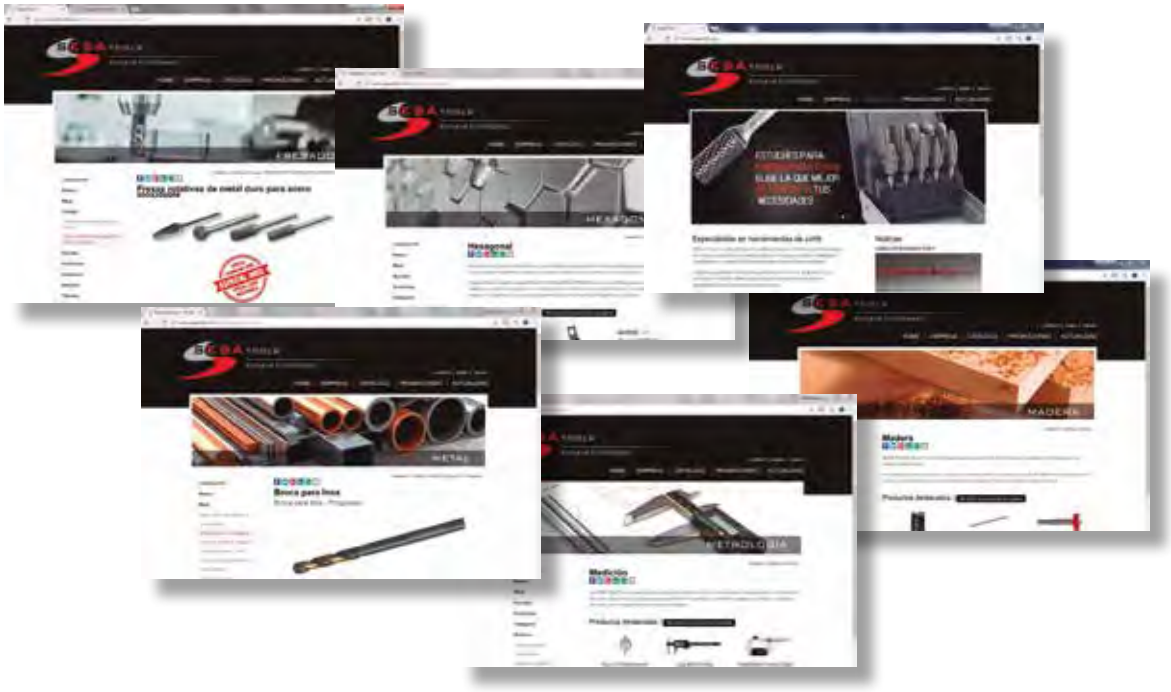
www.sesatools.com

http://www.sesatools.com/brocaporcelanato/ventajas.htm

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SESA TOOLS®

ONLINE













16 HORAS
92% STOCK - 98% TASA DE SERVICIO
SOPORTE TÉCNICO Y PERSONALIZADO

16 HOURS
92% STOCK - 98% SERVICE RATE
TECHNICAL AND PERSONALIZED SUPPORT

16 HEURES
92% STOCK - 98% TAUX SERVICE
ATTENTION TECHNIQUE ET PERSONALIZÉE

SERVICIO
SERVICE
SERVICE

advance
MAXIMO RENDIMIENTO

VALOR AÑADIDO
INNOVACIÓN
CALIDAD - GAMAS

ADDED VALUE
INNOVATION
QUALITY - RANGES

VALEUR AJOUTEÉ
INNOVATION
QUALITÉ - GAMMES

PRODUCTO
PRODUCT
PRODUIT

EQUIPO
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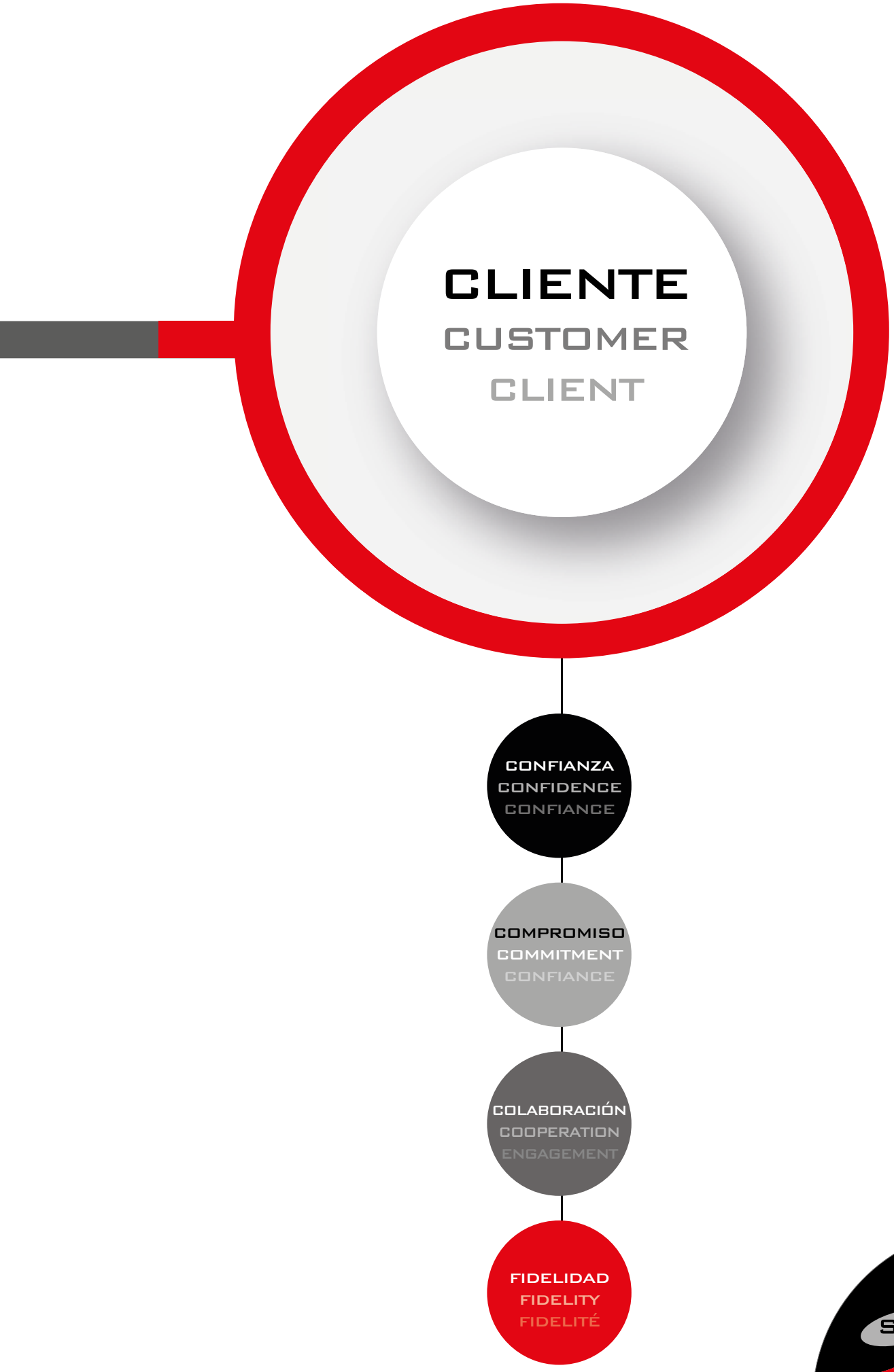
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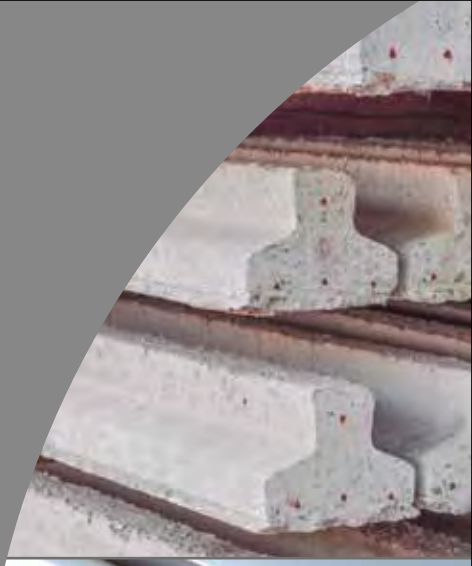
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CLIENTE
CUSTOMER
CLIENT
CONFIANZA
CONFIDENCE
CONFIANCE
COMPROMISO
COMMITMENT
CONFIANCE
COLABORACIÓN
COOPERATION
ENGAGEMENT
FIDELIDAD
FIDELITY
FIDELITÉ

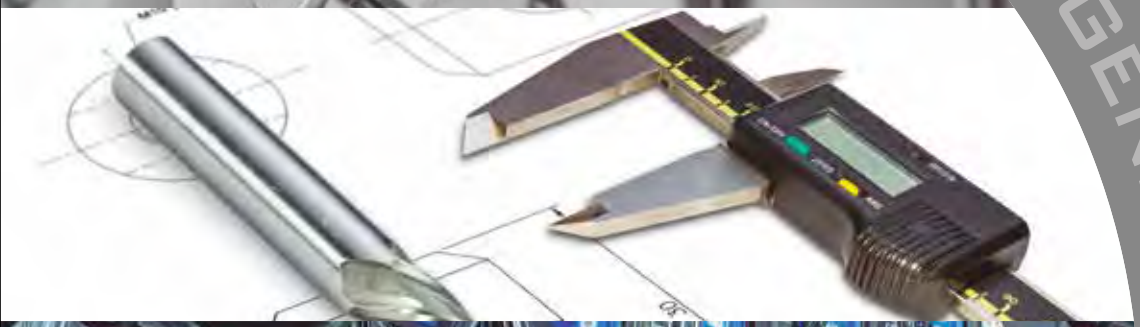






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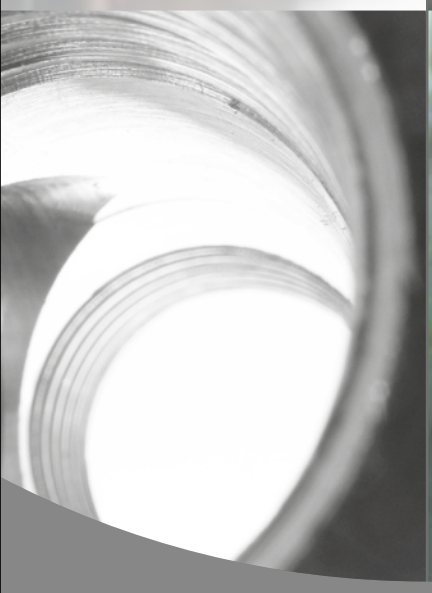













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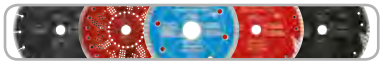
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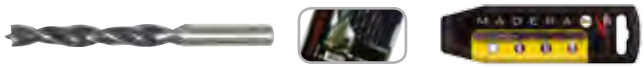
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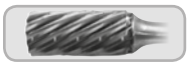
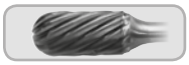
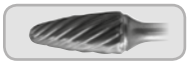
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	DIN 371 DIN 376			UNF	HSS-CO 5%		FORM C/39°			INOX		309
	DIN 5156			G(BSP)	HSS-CO 5%		FORM B			INOX		310
	DIN 5156			G(BSP)	HSS-CO 5%		FORM C/39°			INOX		310

ROSCADO *THREADING • FILÉTAGE*

MACHOS MÁQUINA DE BANDA / *COLOURED RING MACHINE TAPS / TARAUDS MACHINE BANDE COLORÉE* 311

NEW	DIN 371 DIN 376		M	PM	FUTURA	FORM B	TOL 6H	ACERO		311
NEW	DIN 371 DIN 376		M	PM	FUTURA	FORM C/40°	TOL 6H	ACERO		311
NEW	DIN 371		M	PM	FUTURA	FORM C/15°	TOL 6H	ACERO		311
NEW	DIN 371 DIN 376		M	HSS-CO 5%	ALUSPEED	FORM B	TOL 6H	AL		312
NEW	DIN 371 DIN 376		M	HSS-CO 5%	ALUSPEED	FORM C/45°	TOL 6H	AL		312

MACHOS MÁQUINA POR LAMINACIÓN/ *FORMING TAPS / TARAUDS À REFOULER* 313

DIN 2174			M	HSS-CO 5%	TIN		TOL 6HX	TOL ISO2X		313
DIN 2174 LUBRICACIÓN *OIL GROOVE AVEC RANURE GRAISSAGE*			M	HSS-CO 5%	TIN		TOL 6HX	TOL ISO2X		314

MACHOS TUERQUEROS / *MACHINE NUT TAPS / TARAUDS MACHINE POUR ÉCROUS* 315

DIN 357			M	HSS-CO 5%				TOL ISO2	ACERO	315
			TR	HSS-G					ACERO	316
			TR	HSS-G		LH			ACERO	317

COJINETES / *DIES / FILIÉRES* 318

DIN 223			M	HSS-G				TOL 6g	ACERO	318
Ø 25 / Ø25.4 / Ø 38.1	ESPECIALES *ESPECIFIC SPÉCIALES*		M	HSS-G		FORM A	TOL 6e	TOL 6g	ACERO	319
DIN 223			MF	HSS-G				TOL 6g	ACERO	320
DIN 223			BSW	HSS-G					ACERO	323
DIN 223			BSF	HSS-G					ACERO	324

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BS1127		BA	HSS-G	FORM A		ACERO 400-800 N/mm²	324
DIN 223		UNC	HSS-G			ACERO 400-800 N/mm²	325
DIN 223		UNF	HSS-G			ACERO 400-800 N/mm²	326
DIN 223		UNEF	HSS-G			ACERO 400-800 N/mm²	327
DIN 5158		G(BSP)	HSS-G			ACERO 400-800 N/mm²	328
		R (BSPT)	HSS-G	FORM A		ACERO 400-800 N/mm²	328
DIN 40434		PG	HSS-G			ACERO 400-800 N/mm²	328
DIN 223		NPT	HSS-G			ACERO 400-800 N/mm²	329
		VG	HSS-G		TOL 6g	ACERO 400-800 N/mm²	329
		BSC	HSS-G		TOL 6g	ACERO 400-800 N/mm²	329
DIN 223		NPTF	HSS-G	FORM A		ACERO 400-800 N/mm²	330
DIN 223		M	HSS-CO 5%		TOL 6g	ACERO 900 -1100 N/mm²	330
DIN 223		MF	HSS-CO 5%		TOL 6g	ACERO 900 -1100 N/mm²	331
DIN 5158		G(BSP)	HSS-CO 5%			ACERO 900 -1100 N/mm²	331
DIN 223		M	HSS-G	LH	TOL 6g	ACERO 400-800 N/mm²	332
DIN 223		MF	HSS-G	LH	TOL 6g	ACERO 400-800 N/mm²	333
DIN 223		BSW	HSS-G	LH		ACERO 400-800 N/mm²	334
DIN 223		UNC	HSS-G	LH		ACERO 400-800 N/mm²	334
DIN 223		UNF	HSS-G	LH		ACERO 400-800 N/mm²	335
DIN 5158		G(BSP)	HSS-G	LH		ACERO 400-800 N/mm²	335

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DIN 382		BSW	HSS-G		ACERO	338
DIN 382		BSF	HSS-G		ACERO	338
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INTERMEDIO / *SECOND LEAD INTERMÉDE*		UNC	HSS-G	FORM D	TOL 3B	ACERO	360
2 PIEZAS / *2 PIECES / 2 PIÉCES*		UNC	HSS-G	FORM D	TOL 3B	ACERO	360
INTERMEDIO / *SECOND LEAD INTERMÉDE*		UNF	HSS-G	FORM D	TOL 3B	ACERO	361
2 PIEZAS / *2 PIECES / 2 PIÉCES*		UNF	HSS-G	FORM D	TOL 3B	ACERO	361
INTERMEDIO / *SECOND LEAD INTERMÉDE*		G(BSP)	HSS-G	FORM D	TOL ISO1 4H	ACERO	362
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MODULE CONSTRUCTION

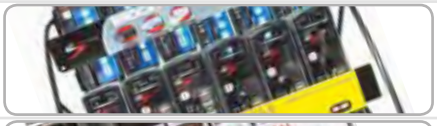
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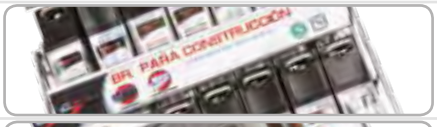
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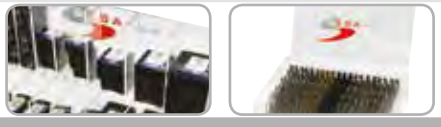
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- CORONAS DIAMANTADA para amoladora

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- ***JR drill bits for porcelanic: RIGID BLISTER for POS***
- ***DIAMOND CORE BITS for grinder***

NOUVEAUTÉS N

- ***Forets JR pour ceramique: BLISTER RIGIDE pour PdV***
- ***TRÉPAN DIAMANTÉ pour broyeur***



CONSTRUCTION-CONSTRUCTION





CONSTRUCCIÓN

SESA TOOLS®

BROCA JR PARA PORCELANATO

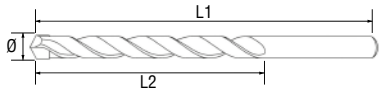
NEW

JR DRILL-BIT FOR PORCELANIC
FORET JR POUR CÉRAMIQUE



advance MAXIMO RENDIMIENTO





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	**85**	50	1	JR0030	**5,06**
3,50	**85**	50	1	JR0035	**5,83**
4,00	**85**	50	1	JR0040	**4,95**
4,50	**85**	50	1	JR0045	**6,04**
5,00	**85**	50	1	JR0050	**5,03**
5,50	**100**	65	1	JR0055	**6,28**
6,00	**100**	65	1	JR0060	**5,03**
6,50	**100**	65	1	JR0065	**6,28**
7,00	**125**	75	1	JR0070	**6,72**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
7,50	125	75	1	JR0075	**7,13**
8,00	125	75	1	JR0080	**8,03**
8,50	125	75	1	JR0085	**8,71**
9,00	150	90	1	JR0090	**8,71**
9,50	150	90	1	JR0095	**9,45**
10,00	150	90	1	JR0100	**8,71**
10,50	150	90	1	JR0105	**10,11**
11,00	150	90	1	JR0110	**12,50**
12,00	150	90	1	JR0120	**17,45**

ESTUCHE BROCA JR 5 PIEZAS

JR DRILL-BIT SET 5 PIECES
COFFRET FORET JR

Medidas / *Sizes*
4 - 5 - 6 - 6 - 8 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	010205S1	**30,40**



EXPOSITOR SOBREMESA JR

NEW

BASIC DISPLAY JR • ÉXPOSITEUR BASE TABLE JR

Expositor MINI 470 x 190 x 140 mm

advance MAXIMO RENDIMIENTO

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
3,00	85	8	
4,00	85	8	
5,00	85	8	
6,00	100	16	
8,00	125	8	
10,00	150	8	
SET BROCA JR 5 PIEZAS *SET 5 PIECES*		5	
Cod. JR061		61	**486,46**

NOTA: Composición con 5 ganchos / *Stand with 5 hooks* / *Présentoirs avec 5 crochets*



ACCESORIOS PORCELANATO
PORCELANIC ACCESSORIES • ACCESSOIRES CÉRAMIQUE



DISPENSADOR DE AGUA

WATER DISPENSER

DISPÉNSEUR D´EAU

Cod.	€/Unid.
JRZZZZ	**21,90**



GUÍA CON VENTOSA Y DISPENSADOR DE AGUA DE BOMBA

SUCTION GUIDE AND WATER DISPENSER

GUIDE AVEC VENTOUSE ET DISPÉNSEUR D´EAU

Cod.	€/Unid.
JRZ02	**38,20**



GUÍA CON VENTOSA

SUCTION DRILLING GUIDE

GUIDE AVEC VENTOUSE

Cod.	€/Unid.
JRZ01	**20,73**



MARCADOR PUNTERO AUTOMÁTICO

AUTOMATIC CENTER PUNCH

MARQUEUR AUTOMATIQUE

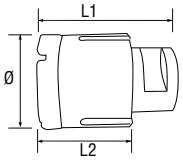
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5PU5000	**11,57**

CORONA DIAMANTADA
DIAMOND CORE BIT • TRÉPAN DIAMANTÉ











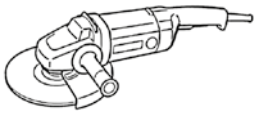
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
5,00	70	40	1	01020605	**26,18**
6,00	70	40	1	01020606	**26,61**
8,00	80	40	1	01020608	**31,29**
10,00	80	40	1	01020610	**33,62**
12,00	80	40	1	01020612	**35,79**
14,00	80	40	1	01020614	**39,59**
15,00	80	40	1	01020615	**43,18**
20,00	90	50	1	01020620	**55,46**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
22	**90**	50	1	01020622	**60,75**
25	**90**	50	1	01020625	**68,96**
30	**90**	50	1	01020630	**91,95**
34	**90**	50	1	01020634	**115,48**
35	**90**	50	1	01020635	**118,78**
40	**90**	50	1	01020640	**135,58**
45	**90**	50	1	01020645	**152,19**

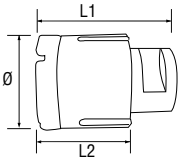


CORONA DIAMANTADA PARA AMOLADORA NEW

DIAMOND CORE BIT FOR GRINDER
TRÉPAN DIAMANTÉ POUR BROYEUR

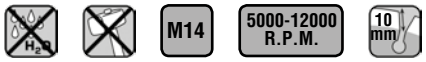












Ø (mm)	Lubrificación interior con cera *Lubrication with wax / Lubrification avec cire*	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6	√	60	35	1	1CDM140060	**22,70**
8	√	60	35	1	1CDM140080	**22,70**
10	√	60	35	1	1CDM140100	**22,70**
12	√	60	35	1	1CDM140120	**25,07**
15	√	60	35	1	1CDM140150	**26,25**
18	-	60	40	1	1CDM140180	**31,39**
20	-	60	40	1	1CDM140200	**34,70**
25	-	60	40	1	1CDM140250	**42,98**
32	-	60	40	1	1CDM140320	**54,57**
35	-	60	40	1	1CDM140350	**59,53**
40	-	60	40	1	1CDM140400	**67,81**
44	-	60	40	1	1CDM140440	**74,61**
50	-	60	40	1	1CDM140500	**84,55**
60	-	60	40	1	1CDM140600	**101,10**
68	-	60	40	1	1CDM140680	**114,34**
75	-	60	40	1	1CDM140750	**144,49**

- Trabajo en seco
- Empezar la perforación con la corona ligeramente inclinada.
- Enderezarla poco a poco para trabajar de forma vertical
- Velocidad de perforación: 5000-12000 rpm.
- Suaves movimientos circulares permiten aumentar la velocidad de perforación y mejoran la refrigeración.
- Hacer pequeñas pausas para refrigerar la corona.

- *Dry running.*
- *Start drilling with the drill bit slightly tilted.*
- *Straighten it bit by bit until it is operating vertically.*
- *Drilling speed: 5000-12000 rpm.*
- *Smooth circular movements allow the drilling speed to be increased and improves cooling.*
- *Take small breaks to cool the drill bit.*

- *Travail à sec.*
- *Commencer la perforation avec la couronne légèrement inclinée.*
- *La redresser peu à peu pour travailler de façon verticale.*
- *Vitesse de perforation : 5000-12000 rpm.*
- *Mouvements circulaires légers qui permettent d'augmenter la vitesse de perforation et d'améliorer la réfrigération.*
- *Faire de petites pauses pour reposer la couronne.*

UTILIDADES / *USES/ UTILISATION*	
35 mm	Instalación de grifería / *pipework installation / installation de robinetterie*
40 mm	Instalación de los desagues de los electrodomésticos / *installation of drainage for domestic appliances / installation des évacuations des appareils électroménagers*
50 mm	Instalación desagues / *installation of industrial drainage / installation d'évacuations industrielles*
60mm	Instalación cajetines electricidad / *installation of electrical terminal boxes / installation de boîtiers électriques*

ADAPTADORES *ADAPTOR • ADAPTATEUR*

	Conversión / *Conversion / Conversion*	L1 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
	De M14 a Mango Hexagonal *From M14 to Hexagonal Shank De M14 a Manche Hexagonale*	65	1	1ACM1401	**7,68**
	De M14 a Mango SDS-PLUS *From M14 to SDS-PLUS Shank De M14 a Manche SDS-PLUS*	78	1	1ACM1402	**10,02**

TORNADO *TORNADO • TORNADO*



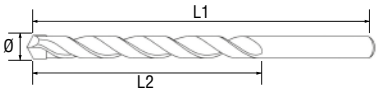


DIN 8039









Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3	60	30	1	1TO03060	**3,77**
4	75	40	1	1TO04075	**3,80**
5	85	50	1	1TO05085	**3,35**
5	150	110	1	1TO05150	**5,60**
6	100	60	1	1TO06100	**3,80**
6	150	110	1	1TO06150	**6,11**
6	200	135	1	1TO06200	**8,22**
7	100	60	1	1TO07100	**4,48**
8	120	80	1	1TO08120	**4,92**
8	200	135	1	1TO08200	**7,83**
8	400	350	1	1TO08400	**13,67**
9	120	80	1	1TO09120	**5,74**
10	120	80	1	1TO10120	**6,72**
10	200	135	1	1TO10200	**10,82**
10	400	350	1	1TO10400	**15,16**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
11	150	90	1	1TO11150	**9,85**
12	150	90	1	1TO12150	**9,19**
12	200	135	1	1TO12200	**14,10**
12	400	350	1	1TO12400	**17,76**
13	150	90	1	1TO13150	**13,20**
14	150	90	1	1TO14150	**13,51**
14	400	350	1	1TO14400	**22,38**
15	150	90	1	1TO15150	**16,57**
16	150	90	1	1TO16150	**16,65**
16	400	350	1	1TO16400	**25,37**
18	160	100	1	1TO18160	**21,65**
18	400	350	1	1TO18400	**31,94**
20	160	100	1	1TO20160	**23,88**
20	400	350	1	1TO20400	**37,31**

ESTUCHE BROCA TORNADO
TORNADO DRILL BITS SET
COFFRET FORETS TORNADO

Medidas / *Sizes*
4 - 5 - 6 - 8 - 10 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	1917T327N	**23,47**



Medidas / *Sizes*
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	1917T333N	**33,15**



ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

ADVANCE BOX (9 UDS. / *PCS.*)

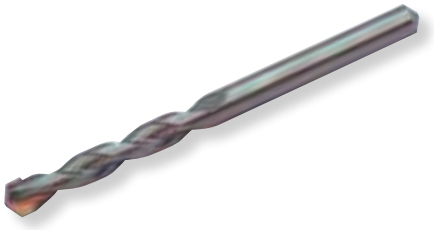
Composición / *Contains / Composition*	**Medidas / *Sizes***	Cod.	€/Unid.
HSS CO HSS-CO 5% + **TORNADO** + **MADERA**	5 - 6 - 8 mm	19CA339	**30,58**



19CA339

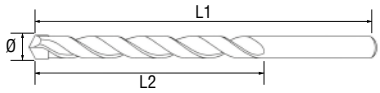
BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

GRANITO PLUS *GRANITE PLUS • GRANITE PLUS*



advance MAXIMO RENDIMIENTO

DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4,00	75	40	1	1GR04075	**2,94**
5,00	85	50	1	1GR05085	**4,03**
6,00	100	60	1	1GR06100	**5,12**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	120	80	1	1GR08120	**6,56**
10,00	120	80	1	1GR10120	**9,10**

ESTUCHE BROCA GRANITO PLUS
GRANITE PLUS DRILL BITS SET
COFFRET FORETS GRANITE PLUS

Medidas / *Sizes*
4 - 5 - 6 - 8 - 10 mm

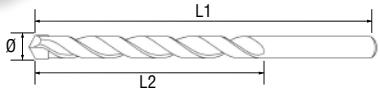
Uds. / *Pcs.*	Cod.	€/Unid.
1	1GR327N	**35,35**



GRANITO: BLISTER RÍGIDO
GRANITE: RIGID PLATIC BLISTER
GRANITE: BLISTER DE PLASTIQUE RIGIDE



DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3	60	30	1	105A03060BL	**1,55**
4	75	40	1	105A04075BL	**1,69**
5	85	50	1	105A05085BL	**1,96**
6	100	60	1	105A06100BL	**2,57**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8	120	80	1	105A08120BL	**3,94**
10	120	80	1	105A10120BL	**5,21**
12	150	90	1	105A12150BL	**6,69**

BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

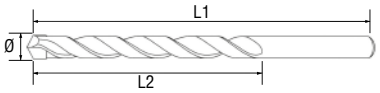
GRANITO *GRANITE • GRANITE*





DIN 8039





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	60	30	1	105A03060	**1,26**
4,00	75	40	1	105A04075	**1,53**
5,00	85	50	1	105A05085	**1,79**
6,00	100	60	1	105A06100	**2,34**
6,00	200	135	1	105A06200	**4,49**
6,00	400	270	1	105A06400	**6,89**
7,00	100	60	1	105A07100	**2,95**
8,00	120	80	1	105A08120	**3,58**
8,00	200	135	1	105A08200	**4,84**
8,00	400	270	1	105A08400	**8,23**
9,00	120	80	1	105A09120	**4,65**
10,00	120	80	1	105A10120	**4,74**
10,00	200	135	1	105A10200	**5,28**
10,00	400	270	1	105A10400	**11,81**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
11,00	150	90	1	105A11150	**5,83**
12,00	150	90	1	105A12150	**6,08**
12,00	200	135	1	105A12200	**6,63**
12,00	400	270	1	105A12400	**13,86**
14,00	150	90	1	105A14150	**6,89**
14,00	400	270	1	105A14400	**17,08**
16,00	150	90	1	105A16150	**8,23**
16,00	400	270	1	105A16400	**19,22**
18,00	160	100	1	105A18160	**10,73**
18,00	400	270	1	105A18400	**22,09**
20,00	160	100	1	105A20160	**11,89**
20,00	400	270	1	105A20400	**24,77**

ESTUCHE BROCA GRANITO
GRANITO DRILL BITS SET
COFFRET FORETS GRANITO

Medidas / *Sizes*
4 - 5 - 6 - 8 - 10 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	1915A327N	**18,15**



Medidas / *Sizes*
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	1915A333N	**28,16**



ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

STANDARD BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*							**Medidas** / *Sizes*	Cod.	€/Unid.
HSS G	HSS-G	+	**GRANITO**		+	**MADERA**	5 - 6 - 8 mm	19CM339	**22,08**



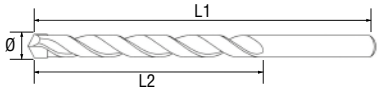
19CM339

BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

BASIC *BASIC • BASIC*



DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	60	30	1	16F03060	**0,71**
4,00	75	40	1	16F04075	**0,79**
5,00	85	50	1	16F05085	**0,98**
6,00	100	60	1	16F06100	**1,22**
6,00	200	135	1	16F06200	**2,08**
6,00	300	200	1	16F06300	**2,57**
7,00	100	60	1	16F07100	**1,45**
8,00	120	80	1	16F08120	**1,37**
8,00	200	135	1	16F08200	**2,53**
8,00	300	200	1	16F08300	**3,33**
8,00	400	270	1	16F08400	**3,47**
9,00	120	80	1	16F09120	**2,00**
10,00	120	80	1	16F10120	**2,08**
10,00	200	135	1	16F10200	**2,92**
10,00	300	200	1	16F10300	**3,79**
10,00	400	270	1	16F10400	**4,13**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
11,00	150	90	1	16F11150	**2,25**
12,00	150	90	1	16F12150	**2,57**
12,00	200	135	1	16F12200	**3,63**
12,00	300	200	1	16F12300	**4,99**
12,00	400	270	1	16F12400	**5,34**
13,00	150	90	1	16F13150	**3,14**
14,00	150	90	1	16F14150	**3,35**
14,00	400	270	1	16F14400	**7,78**
15,00	150	90	1	16F15150	**3,66**
16,00	150	90	1	16F16150	**4,29**
16,00	400	270	1	16F16400	**9,12**
18,00	160	100	1	16F18160	**5,67**
18,00	400	270	1	16F18400	**10,57**
20,00	160	100	1	16F20160	**7,31**
20,00	400	270	1	16F20400	**11,89**
22,00	400	270	1	16F22400	**13,17**

ESTUCHE BROCA BASIC
BASIC DRILL BITS SET
COFFRET FORETS BASIC

Medidas / *Sizes*
4 - 5 - 6 - 8 - 10 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	1916F327N	**10,09**



Medidas / *Sizes*
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	1916F333N	**20,70**



ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

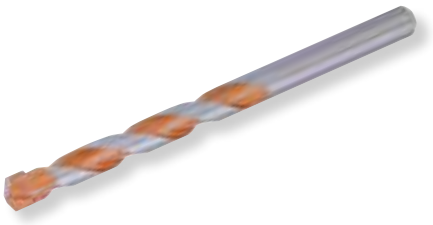
BASIC BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*							Medidas / *Sizes*	Cod.	€/Unid.
HSS WHITE	**HSS**	+	**BASIC**	+	**MADERA**		5 - 6 - 8 mm	19CB339	**15,98**

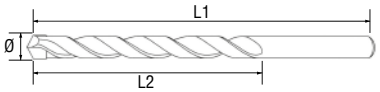


19CB339

BROCA MULTI-USO
MULTI-PURPOSE DRILL-BIT • FORET MULTIFUNCTION



MULTI | DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	70	40	1	1MU03070	**6,97**
4,00	75	40	1	1MU04075	**6,66**
5,00	85	50	1	1MU05085	**7,20**
5,00	150	110	1	1MU05150	**10,06**
5,50	85	50	1	1MU55085	**7,74**
6,00	100	60	1	1MU06100	**7,81**
6,00	150	110	1	1MU06150	**11,47**
6,50	100	60	1	1MU65100	**8,37**
6,50	150	110	1	1MU65150	**11,99**
7,00	100	60	1	1MU07100	**8,91**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	120	80	1	1MU08120	**9,75**
8,00	200	135	1	1MU08200	**14,32**
9,00	120	80	1	1MU09120	**11,23**
10,00	120	80	1	1MU10120	**12,85**
10,00	200	135	1	1MU10200	**18,35**
12,00	150	90	1	1MU12150	**17,57**
12,00	200	135	1	1MU12200	**24,01**
14,00	150	90	1	1MU14150	**23,80**
16,00	150	90	1	1MU16150	**29,72**

ESTUCHE BROCA MULTI-USO
MULTI-PURPOSE DRILL-BIT DRILL BITS SET
COFFRET FORETS MULTIFUNCTION

Medidas / *Sizes*
4 - 5 - 6 - 8 - 10 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	1MU327N	**47,66**



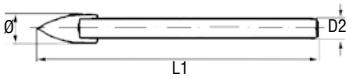
Medidas / *Sizes*
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	1MU333N	**69,27**



BROCA PARA VIDRIO *GLASS DRIL-BIT • FORET POUR VERRE*





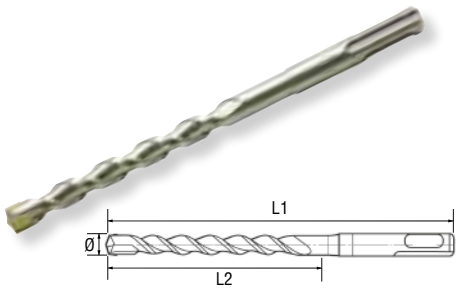
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	58	3,00	1	1VI0300	**4,76**
4,00	58	3,00	1	1VI0400	**5,13**
5,00	58	4,00	1	1VI0500	**5,63**
6,00	58	5,00	1	1VI0600	**6,23**
7,00	78	5,00	1	1VI0700	**6,82**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	78	6,00	1	1VI0800	**8,06**
9,00	98	6,00	1	1VI0900	**9,89**
10,00	98	7,00	1	1VI1000	**10,19**
12,00	98	8,00	1	1VI1200	**16,62**

BROCAS PARA MARTILLO
HAMMER DRILL BITS • FORETS MARTEAUX

CYCLONE SDS-PLUS *SDS-PLUS CYCLONE • CYCLONE SDS-PLUS*

Basic



DIN 8035 | SDS plus

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4	110	50	1	1CY04110	**3,55**
5	110	50	1	1CY05110	**2,86**
5	160	100	1	1CY05160	**3,55**
6	110	50	1	1CY06110	**2,86**
6	160	100	1	1CY06160	**3,33**
6	210	150	1	1CY06210	**4,95**
7	110	50	1	1CY07110	**3,66**
7	160	100	1	1CY07160	**4,02**
8	110	50	1	1CY08110	**3,47**
8	160	100	1	1CY08160	**3,55**
8	210	150	1	1CY08210	**4,49**
8	260	200	1	1CY08260	**6,02**
10	110	50	1	1CY10110	**4,05**
10	160	100	1	1CY10160	**4,46**
10	210	150	1	1CY10210	**5,59**
10	260	200	1	1CY10260	**6,54**
10	450	390	1	1CY10450	**14,69**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12	160	100	1	1CY12160	**5,16**
12	210	150	1	1CY12210	**6,37**
12	260	200	1	1CY12260	**7,72**
12	310	250	1	1CY12310	**9,28**
12	450	390	1	1CY12450	**14,08**
14	160	100	1	1CY14160	**6,97**
14	210	150	1	1CY14210	**9,15**
14	260	200	1	1CY14260	**9,57**
14	450	390	1	1CY14450	**16,43**
16	160	100	1	1CY16160	**9,40**
16	210	150	1	1CY16210	**10,80**
16	310	250	1	1CY16310	**13,27**
16	450	390	1	1CY16450	**19,93**
18	210	150	1	1CY18210	**17,08**
20	350	290	1	1CY20350	**22,96**
22	450	390	1	1CY22450	**39,00**
25	450	390	1	1CY25450	**46,50**

ESTUCHE BROCA CYCLONE *CYCLONE DRILL BITS SET • COFFRET FORETS CYCLONE*



Medidas / *Sizes*
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm

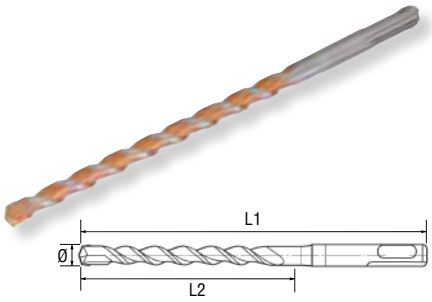
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
7	1105P72	**33,07**



Medidas / *Sizes*	**Uds.** / *Pcs.*
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4
Puntero / *Point Chisel* **Cincel** / *Flat Chisel* **Cincel Ancho** / *Spade Chisel* x 140 mm	3

Cod.	**€/Unid.**
1106P72	**87,75**

BROCA MULTI-USO SDS-PLUS
SDS-PLUS MULTI- PURPOSE DRILL BIT
FORET MULTI MATERIAUX SDS-PLUS



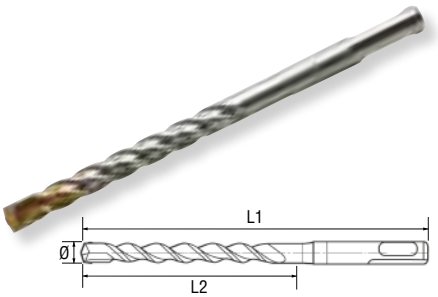
MULTI | DIN 8035 | PGM | SDS plus

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	160	100	1	1MS06160	**18,27**
8,00	160	100	1	1MS08160	**22,00**
8,00	210	150	1	1MS08210	**25,94**
10,00	160	100	1	1MS10160	**25,64**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
10,00	260	200	1	1MS10260	**36,60**
12,00	160	100	1	1MS12160	**27,83**
12,00	260	200	1	1MS12260	**43,05**
14,00	260	200	1	1MS14260	**48,59**

BROCAS PARA MARTILLO
HAMMER DRILL BITS • FORETS MARTEAUX

ST-2 SDS-PLUS *SDS-PLUS ST-2 • ST-2 SDS-PLUS*



DIN 8035 | SDS plus | PGM

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4,00	110	50	1	1ST04110	**5,22**
5,00	110	50	1	1ST05110	**4,21**
5,00	160	100	1	1ST05160	**5,22**
5,00	210	150	1	1ST05210	**8,10**
5,50	110	50	1	1ST55110	**4,97**
5,50	160	100	1	1ST55160	**5,58**
6,00	110	50	1	1ST06110	**4,21**
6,00	160	100	1	1ST06160	**4,91**
6,00	210	150	1	1ST06210	**7,28**
6,00	260	200	1	1ST06260	**10,58**
6,00	460	400	1	1ST06460	**19,31**
6,50	110	50	1	1ST65110	**5,08**
6,50	160	100	1	1ST65160	**5,88**
6,50	260	200	1	1ST65260	**9,66**
7,00	110	50	1	1ST07110	**5,40**
7,00	160	100	1	1ST07160	**5,91**
8,00	110	50	1	1ST08110	**5,11**
8,00	160	100	1	1ST08160	**5,22**
8,00	210	150	1	1ST08210	**6,59**
8,00	260	200	1	1ST08260	**8,88**
8,00	310	250	1	1ST08310	**12,77**
8,00	460	400	1	1ST08460	**19,94**
9,00	160	100	1	1ST09160	**7,40**
9,00	260	200	1	1ST09260	**12,45**
10,00	110	50	1	1ST10110	**5,97**
10,00	160	100	1	1ST10160	**6,57**
10,00	210	150	1	1ST10210	**8,24**
10,00	260	200	1	1ST10260	**9,63**
10,00	310	250	1	1ST10310	**14,55**
10,00	460	400	1	1ST10460	**21,63**
10,00	600	550	1	1ST10600	**31,47**
11,00	160	100	1	1ST11160	**8,30**
11,00	260	200	1	1ST11260	**12,66**
12,00	160	100	1	1ST12160	**7,59**
12,00	200	150	1	1ST12210	**9,37**
12,00	260	200	1	1ST12260	**11,36**
12,00	310	250	1	1ST12310	**16,60**
12,00	450	400	1	1ST12450	**20,73**
12,00	600	550	1	1ST12600	**31,33**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
13,00	160	100	1	1ST13160	**10,27**
13,00	260	200	1	1ST13260	**13,46**
14,00	165	100	1	1ST14165	**10,27**
14,00	200	150	1	1ST14200	**13,46**
14,00	260	200	1	1ST14260	**14,10**
14,00	310	250	1	1ST14310	**15,75**
14,00	450	400	1	1ST14450	**24,18**
14,00	600	550	1	1ST14600	**37,68**
15,00	160	100	1	1ST15160	**13,44**
15,00	260	200	1	1ST15260	**17,80**
16,00	160	100	1	1ST16160	**13,84**
16,00	200	150	1	1ST16200	**15,89**
16,00	260	200	1	1ST16260	**17,48**
16,00	300	250	1	1ST16300	**22,71**
16,00	450	400	1	1ST16450	**29,35**
16,00	600	550	1	1ST16600	**38,73**
16,00	800	750	1	1ST16800	**57,70**
16,00	1.000	950	1	1ST161000	**89,33**
18,00	200	150	1	1ST18200	**25,16**
18,00	300	250	1	1ST18300	**33,12**
18,00	450	400	1	1ST18450	**36,01**
18,00	600	550	1	1ST18600	**48,64**
18,00	1.000	950	1	1ST181000	**102,29**
19,00	200	150	1	1ST19200	**27,44**
19,00	450	400	1	1ST19450	**44,10**
20,00	200	150	1	1ST20200	**30,63**
20,00	300	250	1	1ST20300	**33,82**
20,00	450	400	1	1ST20450	**39,43**
20,00	600	550	1	1ST20600	**50,78**
20,00	1.000	950	1	1ST201000	**108,14**
22,00	250	200	1	1ST22250	**43,38**
22,00	450	400	1	1ST22450	**57,42**
22,00	600	550	1	1ST22600	**75,29**
24,00	250	200	1	1ST24250	**49,76**
24,00	450	400	1	1ST24450	**63,79**
25,00	250	200	1	1ST25250	**51,36**
25,00	450	400	1	1ST25450	**68,45**
26,00	450	400	1	1ST26450	**68,90**

NOTA: Para otras medidas, consultar / *Request for other sizes / Pour d´autres dimensions, nous consulter*

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

ESTUCHE BROCA ST-2 *ST-2 DRILL BITS SET • COFFRET FORETS ST-2*



Medidas / *Sizes*	Uds. / *Pcs.*	Cod.	€/Unid.
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm	7	1105P73	**58,01**



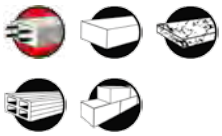
Medidas / *Sizes*	Uds. / *Pcs.*	Cod.	€/Unid.
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4	1106P73	**99,37**
Puntero / *Point Chisel* **Cincel** / *Flat Chisel* **Cincel Ancho** / *Spade Chisel* x 140 mm	3		

BROCAS PARA MARTILLO
HAMMER DRILL BITS • FORETS MARTEAUX

HURRICANE MULTIARISTAS SDS-PLUS
SDS-PLUS HURRICANE MULTICUTTER • MULTITAILLANT HURRICANE SDS-PLUS

ADVANCE MÁXIMO RENDIMIENTO



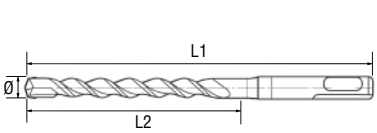


DIN 8035

PGM

SDS plus





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
5	110	50	1	1HU05110	**16,98**
5	160	100	1	1HU05160	**17,05**
6	110	50	1	1HU06110	**12,45**
6	160	100	1	1HU06160	**12,73**
6	210	150	1	1HU06210	**13,64**
6	260	200	1	1HU06260	**14,81**
6	310	250	1	1HU06310	**19,93**
7	160	100	1	1HU07160	**15,25**
8	110	50	1	1HU08110	**12,73**
8	160	100	1	1HU08160	**13,30**
8	210	150	1	1HU08210	**17,22**
8	260	200	1	1HU08260	**17,70**
8	450	400	1	1HU08450	**47,73**
10	110	50	1	1HU10110	**14,52**
10	160	100	1	1HU10160	**14,25**
10	210	150	1	1HU10210	**15,40**
10	310	250	1	1HU10310	**19,83**
10	450	400	1	1HU10450	**48,66**
12	160	100	1	1HU12160	**15,92**
12	210	150	1	1HU12210	**17,43**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12	260	200	1	1HU12260	**20,99**
12	310	250	1	1HU12310	**27,47**
12	450	400	1	1HU12450	**53,75**
14	160	100	1	1HU14160	**23,65**
14	210	150	1	1HU14210	**24,55**
14	310	250	1	1HU14310	**27,48**
14	450	400	1	1HU14450	**59,29**
16	210	150	1	1HU16210	**31,49**
16	260	200	1	1HU16260	**34,95**
16	310	250	1	1HU16310	**37,56**
16	450	400	1	1HU16450	**58,56**
18	260	200	1	1HU18260	**60,45**
18	450	400	1	1HU18450	**80,05**
20	260	200	1	1HU20260	**78,94**
20	450	400	1	1HU20450	**85,71**
22	450	400	1	1HU22450	**109,58**
24	450	400	1	1HU24450	**119,71**
25	450	400	1	1HU25450	**126,13**
28	450	400	1	1HU28450	**135,98**
30	450	400	1	1HU30450	**153,03**

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth.* / *Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

ESTUCHE BROCA HURRICANE *HURRICANE DRILL BITS SET • COFFRET FORETS HURRICANE*



Medidas / *Sizes*
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm

Uds. / *Pcs.*	Cod.	€/Unid.
7	1105P71	**98,36**



Medidas / *Sizes*	Uds. / *Pcs.*
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4
Puntero / *Point Chisel* **Cincel** / *Flat Chisel* **Cincel Ancho** / *Spade Chisel* x 140 mm	3

Cod.	€/Unid.
1106P71	**130,65**

SDS-MAX STORM
SDS-MAX STORM • SDS-MAX STORM

La nueva broca **STORM** con anclaje **SDS-MAX** proporciona nuevas ventajas en este tipo de herramienta. El novedoso sistema de la punta evita la fricción en mayor medida, lo que significa que aumenta la durabilidad y reduce el coste por agujero. Además, la extracción de viruta a través de sus 4 canales por las aberturas diseñadas en la punta, la convierte en la broca más rápida en esta gama.

*The new **STORM** drill bit with an **SDS-MAX** shank provides new advantages for this type of tool. The new cutting edge system largely reduces friction, thereby increasing durability and diminishing costs per hole. Furthermore, the extraction of chip swarf through the 4 flutes built into the nosepiece makes it the fastest drill in this range.*

*Le nouveau foret **STORM** à ancrage **SDS-MAX** offre de nouveaux avantages pour ce type d'outillage. Le modèle de pointe innovant évite dans une grande mesure la friction, ce qui signifie une augmentation de sa durabilité et une réduction du coût par trou. Par ailleurs, l'extraction des alésures à travers ses 4 canaux, par les ouvertures placées sur la pointe en fait le foret le plus rapide de cette gamme.*



- Diseño para una fricción baja y mayor velocidad de corte.
- Cabeza de 4 puntas de Carburo de máxima calidad para maximizar la velocidad de corte.

- *Designed to produce minimal friction and greater cutting speed.*
- *Best quality Carbure 4 cutter head design maximizing speed and minimizing vibration.*

- *Conçu pour obtenir une faible friction et une plus grande vitesse de coupe.*
- *Tête à 4 pointes en Carbure de la plus haute qualité afin de maximiser la vitesse de coupe et minimiser la vibration.*



- Apertura en la punta diseñada especialmente para evacuación de viruta por los 4 canales de exrtracción.

- *Opening in the nosepiece specially designed for the removal of chip swarf through 4 extraction flutes.*

- *Ouverture sur la pointe spécialement conçue pour l'évacuation des copeaux à travers ses 4 canaux d'extraction.*



- 4 canales de extracción para una perforación rápida y cómoda.

- *4 extraction flutes for a speedy and smooth drill.*

- *4 canaux d'extraction pour une perforation rapide et facile.*



- Núcleo central optimizado, mejora la transmisión de energía desde el mango hasta la punta.

- *Optimised central core to improve the transmission of energy from the handle to the nosepiece.*

- *Noyau central optimisé, qui améliore la transmission d'énergie de la poignée à la pointe.*



Broca fabricada bajo los estándares de calidad PGM / *Manufactured on PGM quality standards* / *Fabriqué sous les normes de calité PGM*

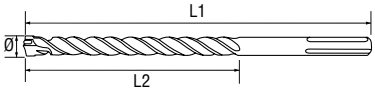
SDS-MAX STORM
SDS-MAX STORM • SDS-MAX STORM





DIN 8035





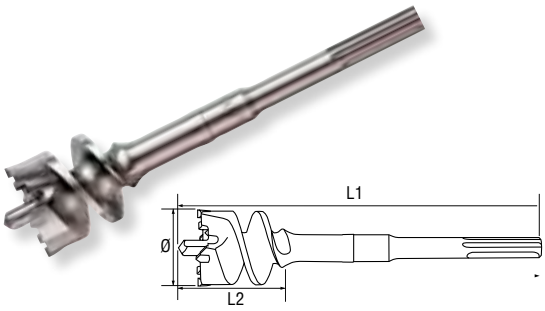
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2 ARISTAS / *2 CUTTING EDGES*					
12	340	200	1	11021212340	**63,16**
12	540	400	1	11021212540	**80,08**
14	340	200	1	11021214340	**68,27**
14	540	400	1	11021214540	**82,23**
15	340	200	1	11021215340	**70,17**
15	540	400	1	11021215540	**83,92**
4 ARISTAS / *4 CUTTING EDGES*					
16	340	200	1	11021216340	**72,25**
16	540	400	1	11021216540	**88,23**
18	340	200	1	11021218340	**74,46**
18	540	400	1	11021218540	**90,55**
20	320	200	1	11021220320	**83,67**
20	520	400	1	11021220520	**94,15**
20	920	800	1	11021220920	**154,60**
22	320	200	1	11021222320	**90,87**
22	520	400	1	11021222520	**97,55**
22	920	800	1	11021222920	**164,12**
22	1320	1200	1	110212221320	**266,97**
24	320	200	1	11021224320	**97,66**
24	520	400	1	11021224520	**109,06**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4 ARISTAS / *4 CUTTING EDGES*					
25	320	200	1	11021225320	**103,43**
25	520	400	1	11021225520	**109,99**
25	920	800	1	11021225920	**180,65**
28	370	250	1	11021228370	**119,16**
28	570	450	1	11021228570	**134,39**
30	370	250	1	11021230370	**121,20**
30	570	450	1	11021230570	**139,03**
32	370	250	1	11021232370	**130,67**
32	570	450	1	11021232570	**147,41**
32	920	800	1	11021232920	**211,62**
32	1320	1200	1	110212321320	**482,77**
35	370	250	1	11021235370	**142,51**
35	570	450	1	11021235570	**182,27**
38	370	250	1	11021238370	**176,88**
38	570	450	1	11021238570	**198,18**
40	570	450	1	11021240570	**247,79**
40	920	800	1	11021240920	**314,99**
40	1320	1200	1	110212401320	**617,98**
45	570	450	1	11021245570	**339,44**
45	920	800	1	11021245920	**452,59**

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth.* / *Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

NOTA: Para longitudes útiles de más de 800 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 400 mm de profundidad. / *For useful lengths of over 800 mm USE A PRE-DRILL BIT of the same diameter up to 400 mm in depth.* / *Pour des longueurs utiles de plus de 800 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 400 mm de profondeur.*

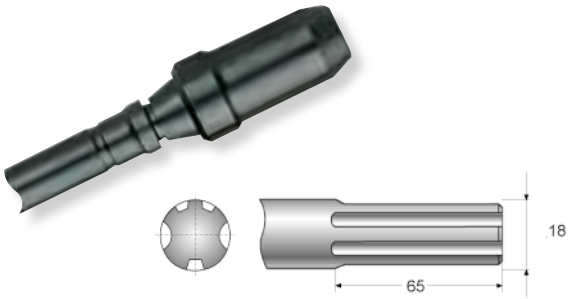
BROCA ROMPEDORA SDS-MAX
SDS-MAX CORE CUTTER • FORET TRÉPAN SDS-MAX



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
55,00	550	410	1	1RO55550	**447,84**
55,00	990	850	1	1RO55990	**525,63**
65,00	550	410	1	1RO65550	**497,47**
65,00	990	850	1	1RO65990	**575,70**
80,00	550	410	1	1RO80550	**600,72**
80,00	990	850	1	1RO80990	**697,72**

NOTA: Para otras medidas, consultar / *Request for other sizes / Pour d´autres dimensions, nous consulter*

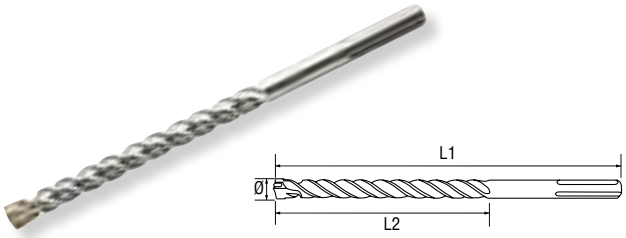
CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS
CONVERSOR FROM SDS-MAX SHANK TO SDS-PLUS
CONVERTEUR DE SDS-MAX A SDS-PLUS



L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
225	1	1CO2250	**131,97**

Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch. / *Drills with SDS-MAX, HILTI Y-Groove and Bosch License system. / Perceuse avec systéme SDS-MAX, HILTI Y-Groove et Bosch Licence.*

BROCA SDS-TOP *SDS-TOP • SDS-TOP*



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2 ARISTAS DE CORTE / *2 CUTTING EDGES*					
6,00	200	100	1	1TP06200	**39,00**
6,00	300	200	1	1TP06300	**43,06**
8,00	200	100	1	1TP08200	**44,16**
8,00	300	200	1	1TP08300	**45,58**
10,00	200	100	1	1TP10200	**47,63**
10,00	300	200	1	1TP10300	**49,02**
10,00	500	400	1	1TP10500	**76,06**
12,00*	200	100	1	1TP12200	**49,14**
12,00	300	200	1	1TP12300	**54,06**
12,00	500	400	1	1TP12500	**77,77**
12,00	600	500	1	1TP12600	**98,91**
14,00	300	200	1	1TP14300	**59,23**
14,00	500	400	1	1TP14500	**84,40**
15,00*	500	400	1	1TP15500	**85,97**
16,00	300	200	1	1TP16300	**69,02**
16,00	500	400	1	1TP16500	**90,57**
4 ARISTAS DE CORTE / *4 CUTTING EDGES*					
18,00	300	200	1	1TP18300	**81,97**
18,00	500	400	1	1TP18500	**106,57**
20,00	300	200	1	1TP20300	**86,97**
20,00	500	400	1	1TP20500	**109,85**
22,00	300	200	1	1TP22300	**123,53**
22,00	500	400	1	1TP22500	**139,61**
24,00	300	200	1	1TP24300	**128,85**
24,00	500	400	1	1TP24500	**161,64**
25,00*	300	200	1	1TP25300	**132,39**
25,00	500	400	1	1TP25500	**166,00**
28,00	300	200	1	1TP28300	**148,29**
28,00	500	400	1	1TP28500	**181,98**
30,00	350	250	1	1TP30350	**157,81**
30,00*	550	450	1	1TP30550	**196,25**
32,00*	350	250	1	1TP32350	**163,79**
32,00	550	450	1	1TP32550	**212,15**

*Hasta agotar existencias / *Until end of stock / Jusqu´à épuisement des stocks*

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

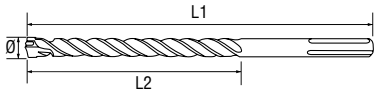
NOTA: Para longitudes útiles de más de 800 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 400 mm de profundidad. / *For useful lengths of over 800 mm USE A PRE-DRILL BIT of the same diameter up to 400 mm in depth. / Pour des longueurs utiles de plus de 800 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 400 mm de profondeur.*

BROCA MANGO ESTRIADO
SPLINED SHANK • CANNELÉ









Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12,00	340	200	1	1ES12340	**97,83**
14,00	340	200	1	1ES14340	**119,99**
16,00	340	200	1	1ES16340	**108,65**
16,00	540	400	1	1ES16540	**117,10**
18,00	340	200	1	1ES18340	**117,30**
18,00	540	400	1	1ES18540	**120,17**
18,00	920	780	1	1ES18920	**183,48**
20,00	340	200	1	1ES20340	**111,52**
20,00	540	400	1	1ES20540	**127,30**
20,00	920	780	1	1ES20920	**183,48**
22,00	340	200	1	1ES22340	**114,40**
22,00	540	400	1	1ES22540	**132,31**
22,00	920	780	1	1ES22920	**200,97**
24,00	340	200	1	1ES24340	**117,30**
24,00	540	400	1	1ES24540	**132,31**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
24,00	**920**	780	1	1ES24920	**230,04**
25,00	**340**	200	1	1ES25340	**121,15**
25,00	**540**	400	1	1ES25540	**157,49**
26,00	**540**	400	1	1ES26540	**157,49**
26,00	**920**	780	1	1ES26920	**306,75**
28,00	**540**	400	1	1ES28540	**157,49**
28,00	**920**	780	1	1ES28920	**306,75**
30,00	**540**	400	1	1ES30540	**172,67**
32,00	**540**	400	1	1ES32540	**188,78**
32,00	**920**	780	1	1ES32920	**306,75**
35,00	**540**	400	1	1ES35540	**196,76**
36,00	**540**	400	1	1ES36540	**220,36**
36,00	**920**	780	1	1ES36920	**400,88**
42,00	**920**	780	1	1ES42920	**476,17**

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / *For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth.* / *Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.*

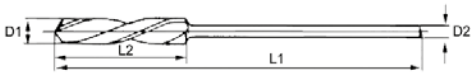
BROCA PARA ENCOFRAR CILÍNDRICA
SHUTTERING STRAIGHT DRILL-BIT
FORET POUR COFFRAGE





DIN 7490





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	400	100	1	12011108400	**14,36**
8,00	600	100	1	12011108600	**14,77**
8,00	800	100	1	12011108800	**16,41**
10,00	400	100	1	12011110400	**16,00**
10,00	600	100	1	12011110600	**16,75**
10,00	800	100	1	12011110800	**18,80**
12,00	400	100	1	12011112400	**19,14**
12,00	600	100	1	12011112600	**19,96**
12,00	800	100	1	12011112800	**22,01**
14,00	400	100	1	12011114400	**22,09**
14,00	600	100	1	12011114600	**22,77**
14,00	800	100	1	12011114800	**24,89**
16,00	400	100	1	12011116400	**24,14**
16,00	600	100	1	12011116600	**24,61**
16,00	800	100	1	12011116800	**26,94**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
18,00	400	100	1	12011118400	**31,86**
18,00	600	100	1	12011118600	**34,12**
18,00	800	100	1	12011118800	**37,74**
20,00	400	100	1	12011120400	**38,50**
20,00	600	100	1	12011120600	**40,13**
20,00	800	100	1	12011120800	**42,60**
22,00	400	100	1	12011122400	**45,87**
22,00	600	100	1	12011122600	**47,18**
22,00	800	100	1	12011122800	**49,57**
24,00	400	100	1	12011124400	**54,70**
24,00	600	100	1	12011124600	**58,59**
24,00	800	100	1	12011124800	**60,37**
26,00	400	100	1	12011126400	**65,17**
28,00	400	100	1	12011128400	**78,01**
30,00	400	100	1	12011130400	**91,41**

BROCA PARA ENCOFRAR SDS-PLUS

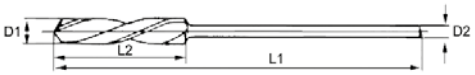
SHUTTERING SDS-PLUS DRILL-BIT
FORET POUR COFFRAGE SDS-PLUS





DIN 7490



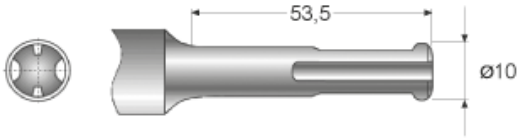


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
10,00	400	100	1	12011210400	**33,33**
10,00	600	100	1	12011210600	**34,01**
12,00	400	100	1	12011212400	**36,00**
12,00	600	100	1	12011212600	**36,95**
12,00	800	100	1	12011212800	**39,88**
14,00	400	100	1	12011214400	**29,81**
14,00	600	100	1	12011214600	**30,44**
14,00	800	100	1	12011214800	**34,51**
16,00	400	100	1	12011216400	**34,23**
16,00	600	100	1	12011216600	**34,51**
16,00	800	100	1	12011216800	**37,04**
18,00	400	100	1	12011218400	**51,35**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
18,00	600	100	1	12011218600	**53,95**
18,00	800	100	1	12011218800	**58,28**
20,00	400	100	1	12011220400	**59,36**
20,00	600	100	1	12011220600	**61,01**
20,00	800	100	1	12011220800	**64,55**
22,00	400	100	1	12011222400	**68,74**
22,00	600	100	1	12011222600	**69,96**
22,00	800	100	1	12011222800	**72,26**
24,00	400	100	1	12011224400	**78,69**
24,00	600	100	1	12011224600	**84,09**
24,00	800	100	1	12011224800	**85,76**

PUNTEROS Y CINCELES
CHISELS AND POINTERS • BURINS ET PICS

ANCLAJE SDS-PLUS
SDS-PLUS SHANK • QUEUE SDS-PLUS



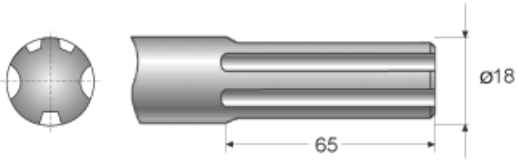
	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL* 	250	-	1	01040101	**11,22**
ROTO-PERCUSIÓN *ROTO-PERCUSSION*	250	-	1	01040102	**13,85**
CINCEL *FLAT CHISEL* 	250	20	1	01040103	**11,22**
CINCEL ANCHO *SPADE CHISEL* 	250	40	1	01040104	**18,94**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL AZULEJO *TILE CHISEL* 	200	40	1	01040105	**29,63**
ACANALADOR *HOLLOW CHISEL* 	240	22	1	01040106	**23,26**
ACANALADOR ALAS *CHISEL WITH GLIDES* 	250	22	1	01040212	**59,38**

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
AEG	APH 14, PH 210, PHE 16, PHE 19, PHE 20, PHE 24,PHE 26, PN 3000 SuperX2, PN 3500X, PN 3000R2, PN 3000XN2, PN 3000SuperXN2, PN 3000X2
ATLAS COPCO	ATLAS COPCO: PPH 30X2E, PPH 26RA, PPH 26XE, PPH 24X2E, PPH 24E, PLH 32XE, PLH 30XE, PLH 30E, PH 3X, PHE 24RX/R, PHE 26R, PHE 26RA, PHE 3, PHE 30RX2
BLACK & DEKER	5009, 5013, 5015, 5016, 5053, 5054, 5056, 5057, KD 651HRE, KD 645HRX
BOSCH	11207, 11210, 11211, 11212, 11213, 11215, 11216, 11222, 11224, 11228, 11236, GBH 2-24DSE, GBH 2-24DSR, GBH 2-24DFR, GAH 500DSR, GBH 4DEF, GBH 4DSC, PBH 200RE
DEWALT	514K, 523K, 557K, 566K, 567K
ELU	MBH 24RLM, MBH 26RLM
FELISATTI	T 724PREC
HILTI	TE 6C, TE 15C, TE 24, TE 25, TE 104
HITACHI	DH 22VB, DH 22VD, DH 24PG, VR 16, BRT22
KANGO	200, 285, 327, 422, 426, 430 D
KRESS	PSX 550, PSE 500, PSE 600, PCX 750, HMX 24, 240 APBE Set
MAQUITA	HR 160, HR 1821, HR 2000, HR 2010, HR 2020, HR 2400, HR 2410, HR 2420, HR 2430, HR 2431, HR 2432, HR 2440, HR 2445, HR2450, HR2455, HR2510, HR2511, HR 3000C
METABO	6010, 6018, 6020, 6024, 6026, BH 6009S, BH E 205R, BH E 24SR, BH E 6011S-R+L, BH E 6024S-R+L, BH E 6028S-R+L, KH E 28, KH E 2, KH E 24, KH E 24contact, UH E 28multi, UH E 22multi, BH EA 14S-R+L
MILWAUKEE	5302, 5303, 5312, 5317, 5320, 5324, 5343, 5344, 5347, 5348, 5362, 5366, 5368, 5369
SPARKY	BPR241E
RIOBI	ED 160, ED211
itw SPIT	335



ANCLAJE SDS-MAX
SDS-MAX SHANK • QUEUE SDS-MAX



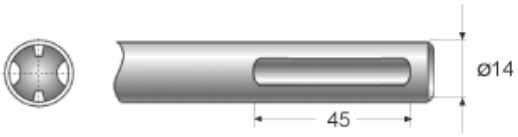


	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*	280	-	1	01040201	**15,64**
	400	-	1	01040202	**17,34**
	600	-	1	01040203	**27,73**
CINCEL *FLAT CHISEL*	280	24	1	01040204	**15,64**
	400	24	1	01040205	**17,43**
	600	24	1	01040206	**30,70**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL ANCHO *SPADE CHISEL*	300	80	1	01040213	**40,81**
	400	50	1	01040208	**39,53**
CINCEL AZULEJO *TILE CHISEL*	300	50	1	01040251	**43,39**
ACANALADOR *HOLLOW CHISEL*	300	26	1	01040210	**38,54**
ACANALADOR ALAS *CHISEL WITH GLIDES*	380	35	1	01040211	**112,55**

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
AEG	PM 10, PN 6000S, PN 4000E
ATLAS COPCO	PH 5S, PHE 5S, PB 6S, PBE, 6S, PHE 6S, PHE 7F, PHE 7S, PB “IOS, PB 14S, PHE 40S, PHE 45S, PHE 50S
BLACK & DEKER	5097, 5099
BOSCH	11214 EVS, 11216, 11223, 11227, 11230, 11231, 11235, 11309, 11311, 11312, 11313, 11316, 11245, GBH 5DEC, GBH 7DE, GBH 7DCE, GBH 8DCE, GBH 10DC, GBH 11DE, GSH 5CE, GSH 10C, GSH 11E, GBH 5DCE, GBH 5/40DE, GBH 7/45DE, GBH 5/40DCE, GBH 8/65DCE
DEWALT	DW 540K, DW 541K, DW 543K, DW 545K, DW 570K, D 25900K
ELU	BH 40K, BH 40EK, BH 45EK, SH 50EK
HILTI	TE 52, TE 54, TE 55, TE 72, TE 74, TE 75, TE 76, TE 76-ATC, TE 92, TE 504, TE 505, TE 705, TE 704
HITACHI	DH 40MA, DH 40MB, DH 50MB, DH 65MB, H 45MA, H 60MA, H 60MB
KANGO	710 MV, 760 MV, 810 MV, 845 MV, 850 MV, 900 MV, 1400 MV
KRESS	1150PSKmax
MAQUITA	HR 500C, HM 1100C, HM 1100S, HM 1200C, HM 1202C, HR4000C, HR4001C, HR4011C, HR4500C, HR5001C
METABO	6045, Bh 6045S
MILWAUKEE	5308, 5313, 5315-21, 5315-22, PH 45SQ
SPARKY	BP 400E
RIOBI	ER 382K, DE 382NP
itwSPIT	351, 355, 385, 371, 455
WACKER	EHB 7/230, EH 9BLM, EHB 11BLM

ANCLAJE SDS-TOP
SDS-TOP SHANK • QUEUE SDS-TOP



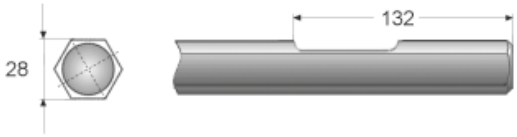
	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*	**270**	**-**	1	1040217	**23,46**
CINCEL *FLAT CHISEL*	**270**	**20**	1	1040230	**24,43**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL ANCHO *SPADE CHISEL*	**250**	**40**	1	1040244	**38,89**
ACANALADOR *HOLLOW CHISEL*	**250***	**22**	1	1040250	**49,56**

*Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
AEG	PN 11
BOSCH	GBH 4Top
HILTI	TE 35
MAQUITA	HR 3550C

ANCLAJE SW-28
SW-28 SHANK • QUEUE SW-28



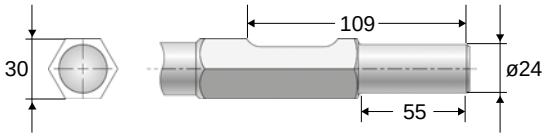
	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*	**400**	**-**	1	01040224	**53,67**
CINCEL *FLAT CHISEL*	**400**	**35**	1	01040236	**54,70**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL ANCHO *SPADE CHISEL*	**400**	**80**	1	01040245	**116,06**

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
ATLAS COPCO	PB 32B
BLACK & DEKER	5027
BOSCH	11304, 11308, 12308, 12314, GSH 27, USH 27, HSH 28
HITACHI	H 65, H 85, H 90SB
KANGO	2500
MAQUITA	HM 1303B, HM 1500B, HM 1800
MILWAUKEE	5338



ANCLAJE SW-30
SW-30 SHANK • QUEUE SW-30

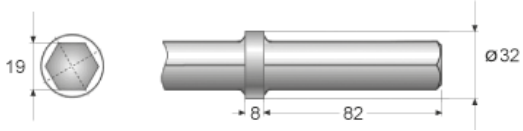


	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*	**400**	**-**	1	01040216	**59,20**
CINCEL *FLAT CHISEL*	**400**	**32**	1	01040243	**59,48**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL ANCHO *SPADE CHISEL*	**400**	**75**	1	01040249	**73,36**

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
HITACHI	H 65SA, PH 65A, H 65SB, H 70SA, H 655B
MAQUITA	8900N, 8900S, HK 1300, HM 0810T, HM 1300, HM 1303, HM 1304, HM 1400, HM 1500

ANCLAJE SW-19 WACKER
SW-19 WACKER SHANK • QUEUE SW-19 WACKER



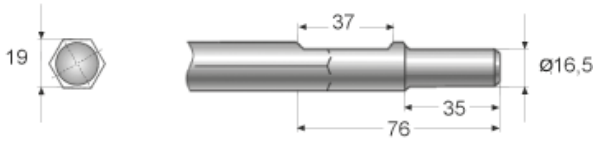
	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*	**480**	**-**	1	01040227	**37,96**
CINCEL *FLAT CHISEL*	**480**	**35**	1	01040238	**38,10**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL ANCHO *SPADE CHISEL*	**300**	**80**	1	01040247	**52,95**

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
IMPEX	DS 120
METABO	MHE "IOS
OUTIFIX	OX1000
ROCOSA	80-100
itwSPIT	CH 120, DS 120
WACKER	WACKER: BH 23, BHB 14, EH 22/380, EH 23/220, EH 24/042, EHB 7/230EB8, EHB 10/220, EH 8/220, EHL 8Y, EHU 8Y/220, EHUB 10Y/220, LHB5, SH 60K

ANCLAJE SW-19 BOSCH 16,5
SW-19 SHANK BOSCH 16,5
QUEUE SW-19 BOSCH 16,5







	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*					
	300	-	1	01040221	**19,53**
	400	-	1	1040223	**25,06**

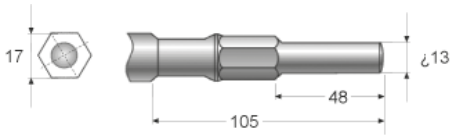
	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL *FLAT CHISEL*					
	300	**22**	1	01040234	**19,50**
	400	**22**	1	01040235	**25,06**

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
AEG	PH 26, PHD 26, PH 38, PHD 38, PHE 38, PH 240, PH 240D, PH 350, PH 350D, PDH 350D
ATLAS COPCO	PH 5H, PH 11H, PB 10H, PHE 5H
BLACK & DEKER	5041, 5042, 5043, 5044, 5045, 5059, 5093, 5095, 5096, 5098
BOSCH	11202, 11203, 11204, 11205, 11206, 11207, 11209, 11212, 11214, 11219, 11220, 11232, 11233, 11244E, 11306, 11307, 11310, 11314, GBH 7/45D, GBH 7/75DE, UBH 6/35, UBH 6/35D, UBH 10/5, UBH 12/50, USH 6
DEWALT	530K, 531K, 532K, 533K, 551K, 558K
ELU	BH 41K, SBH 41K, BH 41EK, BH 46EK
HITACHI	DH 38YA, DH 38YE, DH 38YF, DH 40FA, DH 40FB, DH 50SB, DS 50SB, DH 45SB
KANGO	430S, 501S, 637S, 750S, 950KS, 950S, 950XS, 975S
MAQUITA	HM 0810B, HM 1140C, HR 3520B, HR 3520EB, HR 3850B, HR 3851, HR 4040C, HR 5000
METABO	11285, 11295, 11305, 11315, BhE 6030S, RH 66, RH 99, RH 99X, 1129, 1130, 6030, 6040, 6046
MILWAUKEE	5309, 5312, 5316, 5317, 5334, 5341, 5343, 5344, 5347, 5348, 5352, 5353, 5363, 5367
PEUGEOT	PM 26, PM 38
RIOBI	ED 350K, ED 382, ED 382P, ER 382, ER 382K
itw SPIT	350
WACKER	EBH 7S

ANCLAJE HITACHI + SW 17

HITACHI SHANK + SW 17

QUEUE HITACHI + SW 17







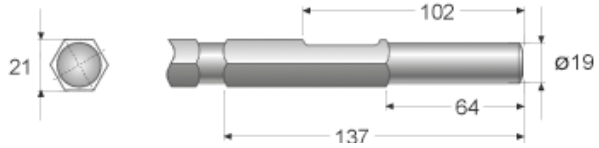
	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*					
	280	-	1	01040218	**19,71**
	360	-	1	01040219	**22,31**
	450	-	1	01040220	**27,65**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL *FLAT CHISEL*					
	280	22	1	01040231	**19,71**
	360	22	1	01040232	**22,31**
	450	22	1	01040233	**27,65**

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
HITACHI	HITACHI: DH 28Y, DH 38YB, DH 38YB1, DH 42, H41SA, H 45SA, PH 40F, PHU 45, PR 25B, PR 38E, VR 38, VRY 38YB
MAQUITA	8035 NB, HM 0810, HM 0810T, HM 1200, HR 3500, HR 3510, HR 3520, HR 3850
RIOBI	CH 450PK, CH 460PK, CH 500K, CH 500P, ER 382K

ANCLAJE KANGO
KANGO SHANK • QUEUE KANGO





	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*					
	300	-	1	01040228	**21,26**
	380	-	1	01040229	**26,69**
	460	-		01040215	**30,06**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL *FLAT CHISEL*					
	300	25	1	01040239	**21,26**
	380	25	1	01040240	**26,69**
	460	25	1	01040241	**30,05**
CINCEL ANCHO *SPADE CHISEL*					
	380	50	1	01040248	**48,46**
	380	80	1	01040207	**50,06**

APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
ATLAS COPCO	PB 6C, PB 10, PB 10C, PB 14C, PH 11C
CASALS	ATILA
HITACHI	DH 50SA, DH 50SA1, H 55SA, H 55SC
IMCO	1150, 150R
KANGO	900, 900X, 928, 950, 950K, 950X, 1400
MAQUITA	HM 1200K, HR 3850K, HR 5000K
RIOBI	CH 425, CH 485K

ANCLAJE SW-19 BOSCH USH 10

SW-19 BOSCH USH 10 SHANK
QUEUE SW-19 BOSCH USH 10







	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
PUNTERO *POINT CHISEL*					
	300	-	1	01040225	**18,66**
	400	-	1	01040226	**24,35**

	L1 (mm)	Ancho *Wide*	Uds. *Pcs.*	Cod.	€/Unid.
CINCEL *FLAT CHISEL*					
	300	25	1	01040237	**18,66**
	400	25	1	01040214	**24,35**
CINCEL ANCHO *SPADE CHISEL*					
	400	50	1	01040246	**37,66**

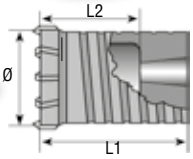
APLICACIONES / *APPLICATIONS* / *APPLICATIONS*	
BOSCH	11302, 11305, 12312, USH 10
CASALS	TORNADO
DEWALT	5021K, DW 558K
ELU	SH 60K
HITACHI	H 55SC
KANGO	638S, 900B, 900KS, 900S, 900XS, 1400B
MAQUITA	HM 1200B, HM 1211B
MILWAUKEE	5535
itw SPIT	400

CORONA MULTIFUNCIÓN PARA TRABAJOS LIGEROS

UNIVERSAL HOLE SAW
TRÉPAN MULTIFUNCTION







MD M16

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Z	Cod.	€/Unid.
Sanitarios y calefacción / *Sanitary and heating pipes* / *Sanitaires et chauffage*						
25,00	73	60	1	3	1CT025	**55,43**
30,00	73	60	1	3	1CT030	**57,04**
35,00	73	60	1	3	1CT035	**60,71**
Tubería y desagüe / *Pipes and wastepipes* / *Tuyauteries et déversoires*						
40,00	73	60	1	3	1CT040	**61,31**
Tubería de agua, aislamientos y desagües / *Water pipes, insulation and wastepipes* / *Tuyauteries, isolations et déversoires*						
45,00	73	60	1	3	1CT045	**64,38**
50,00	73	60	1	3	1CT050	**66,37**
Focos empotrados / *Recessed lights* / *Foyers encastrés*						
55,00	73	60	1	3	1CT055	**76,65**
58,00	73	60	1	5	1CT058	**87,06**
60,00	73	60	1	5	1CT060	**87,12**
63,00	73	60	1	5	1CT063	**87,19**
Caja de empalmes / *Junction box* / *Boites de jonctions*						
65,00	73	60	1	5	1CT065	**87,86**
68,00	73	60	1	5	1CT068	**92,39**
74,00	73	60	1	5	1CT074	**105,47**
Cajas de distribución / *Switchboxes* / *Switchbox*						
80,00	73	60	1	5	1CT080	**109,41**
90,00	73	60	1	5	1CT090	**149,76**
Conductos de aire / *Vent pipes* / *Conduit d´aire*						
105,00	73	60	1	6	1CT105	**165,58**

ADAPTADOR MANGO SDS-PLUS PARA CORONA MULTIFUNCIÓN
SDS-PLUS SHANK FOR UNIVERSAL HOLE SAW • QUEUE SDS-PLUS POUR TRÉPAN MULTIFUNCTION

SDS plus · M16

L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
100	1	1AS100	**31,57**
200	1	1AS200	**48,56**
350	1	1AS350	**65,22**



NOTA: No se recomienda el uso del adaptador de 350 mm con coronas mayores de 45 mm de diámetro. / *Not recommended adapter of 350 mm for more than 45 mm. diameter hole saws. / Adaptateur 350 mm non recommendé avec trépans supérieures á 45 mm.*

NOTA: Para realizar un trabajo de diámetro mayor a 45 mm se recomienda el uso del sistema SDS-MAX. / *For diameters bigger than 45 mm, SDS-MAX system recommended / Pour des travaux supérieures á 45 mm, système recommendé SDS-MAX.*

ADAPTADOR MANGO HEXAGONAL PARA CORONA MULTIFUNCIÓN
HEXAGONAL SHANK FOR UNIVERSAL HOLE SAW • QUEUE HEXAGONALE POUR TRÉPAN MULTIFUNCTION

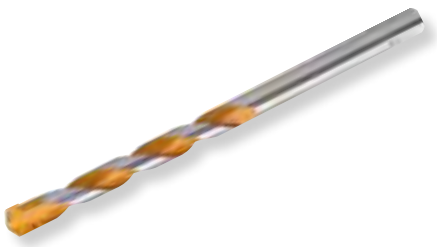
M16

L1 (mm)	⬡ Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
80	**11**	1	1AH080	**27,82**
200	**11**	1	1AH200	**34,83**
350	**11**	1	1AH350	**47,18**



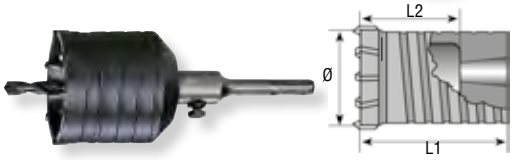
BROCA DE CENTRAR PARA CORONA MULTIFUNCIÓN
CENTRE DRILL BIT FOR UNIVERSAL HOLE SAW
FORET DE CENTRAGE POUR TRÉPAN MULTIFUNCTION

L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8 x 120	1	1AP08120	**10,92**



CORONA SISTEMA M16 TRABAJOS MEDIOS
HOLLOW CORE M16 ASSEMBLY • TRÉPAN BÉTON M16





MD M16

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Z	Cod.	€/Unid.
25,00	80	60	1	5	1M16025	**58,80**
30,00	80	60	1	6	1M16030	**61,88**
35,00	80	60	1	6	1M16035	**67,33**
40,00	90	70	1	6	1M16040	**72,39**
45,00	90	70	1	6	1M16045	**78,81**
50,00	90	70	1	6	1M16050	**80,38**
55,00	72	52	1	6	1M16055	**81,49**
60,00	72	52	1	6	1M16060	**83,08**
65,00	72	50	1	6	1M16065	**84,25**
68,00	72	50	1	6	1M16068	**88,14**
80,00	82	60	1	6	1M16080	**98,76**
90,00	82	60	1	8	1M16090	**137,20**
100,00	82	60	1	8	1M16100	**175,99**

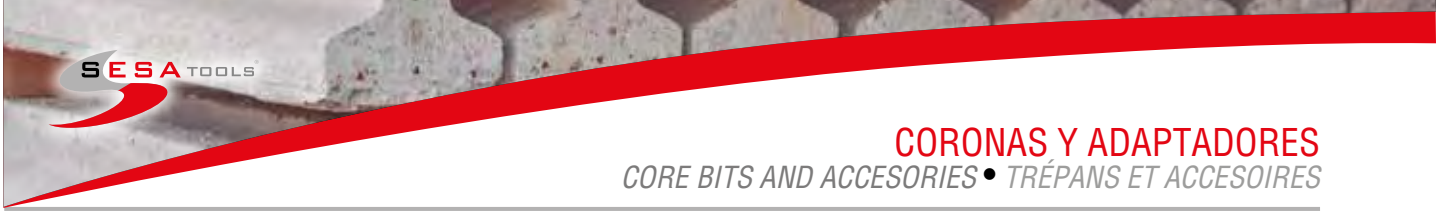
ADAPTADOR SDS-PLUS CON BROCA CENTRADORA
SDS-PLUS ADAPTER WITH CENTER DRILL
ADAPTATEUR AVEC MÉCHE DE CENTRAGE

SDS plus M16



L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
178	1	1AC178	**49,81**
268	1	1AC268	**67,48**
418	1	1AC418	**96,33**

NOTA: No se recomienda el uso del adaptador de 418 mm con coronas mayores de 45 mm de diámetro. / *Not recommended adapter of 418 mm for more than 45 mm. diameter hole saws. / Adaptateur 418 mm non recommendé avec trépans supérieures á 45 mm.*



RECOMENDACIONES DE USO PARA PROLONGADORES SDS-PLUS Y HEXAGONALES PARA CORONAS M16

USAGE RECOMMENDATIONS FOR SDS-PLUS EXTENSIONS AND HEX SOCKETS FOR M16 DRILL BITS • RECOMMANDATIONS D'UTILISATION POUR RALLONGES SDS-PLUS ET HEXAGONALES POUR COURONNES M16



PROFUNDIDAD *DEPTH* *PROFONDEUR*		ADAPTADOR RECOMENDADO *RECOMENDED SHANK ADAPTER* *ADAPTATEUR RECOMMANDÉ*	
< 100 mm	1AC178	SDS-PLUS CON BROCA CENTRADORA L= 178 mm (Pág. 63) *SDS PLUS SHANK ADAPTER WITH CENTER DRILL L= 178 mm (Pag. 63)* *ADAPTATEUR QUEUE SDS-PLUS AVEC MÉCHE DE CENTRAGE L= 178 mm (Pág. 63)*	√
	1AS100	SDS-PLUS L= 100 mm (Pág. 66) *SDS-PLUS SHNAK ADAPTER L= 100 mm (Pag. 66)* *QUEUE SDS-PLUS L= 100 mm (Pág. 66)*	√
	1AH080	HEXAGONAL L=80 mm (Pág. 66) *HEXAGONAL SHANK ADAPTER L=80 mm (Pag. 66)* *QUEUE HEXAGONAL L=80 mm (Pág. 66)*	√
	1AC268	SDS-PLUS CON BROCA CENTRADORA L= 268 mm (Pág. 63) *SDS PLUS SHANK ADAPTER WITH CENTER DRILL L= 268 mm (Pag. 63)* *ADAPTATEUR QUEUE SDS-PLUS AVEC MÉCHE DE CENTRAGE L= 268 mm (Pág. 63)*	POSIBLE *POSSIBLE* *POSIBLE*
	1AS200	SDS-PLUS L= 200 mm (Pág. 66) *SDS-PLUS SHNAK ADAPTER L= 200 mm (Pag. 66)* *QUEUE SDS-PLUS L= 200 mm (Pág. 66)*	POSIBLE *POSSIBLE* *POSIBLE*
	1AH200	HEXAGONAL L=200 mm (Pág. 66) *HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 66)* *QUEUE HEXAGONAL L=200 mm (Pág. 66)*	POSIBLE *POSSIBLE* *POSIBLE*
100-200 mm	1AC268	SDS-PLUS CON BROCA CENTRADORA L= 268 mm (Pág. 63) *SDS PLUS SHANK ADAPTER WITH CENTER DRILL L= 268 mm (Pag. 63)* *ADAPTATEUR QUEUE SDS-PLUS AVEC MÉCHE DE CENTRAGE L= 178 mm (Pág. 63)*	√
	1AS200	SDS-PLUS L= 200 mm (Pág. 66) *SDS-PLUS SHNAK ADAPTER L= 200 mm (Pag. 66)* *QUEUE SDS-PLUS L= 200 mm (Pág. 66)*	√
	1AH200	HEXAGONAL L=200 mm (Pág. 66) *HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 66)* *QUEUE HEXAGONAL L=200 mm (Pág. 66)*	√

RECOMENDACIONES DE USO PARA PROLONGADORES SDS-PLUS Y HEXAGONALES PARA CORONAS M16

USAGE RECOMMENDATIONS FOR SDS-PLUS EXTENSIONS AND HEX SOCKETS FOR M16 DRILL BITS • RECOMMANDATIONS D'UTILISATION POUR RALLONGES SDS-PLUS ET HEXAGONALES POUR COURONNES M16

PROFUNDIDAD *DEPTH* *PROFONDEUR*		ADAPTADOR RECOMENDADO *RECOMENDED SHANK ADAPTER* *ADAPTATEUR RECOMMANDÉ*
> 200 mm	1AC418	SDS-PLUS CON BROCA CENTRADORA L= 418 mm (Pág. 63) *SDS PLUS SHANK ADAPTER WITH CENTER DRILL L= 418 mm (Pag. 63)* *ADAPTATEUR QUEUE SDS-PLUS AVEC MÉCHE DE CENTRAGE L= 418 mm (Pág. 63)*
	1AS350	SDS-PLUS L= 350 mm (Pág. 66) *SDS-PLUS SHNAK ADAPTER L= 350 mm (Pag. 66)* *QUEUE SDS-PLUS L= 350 mm (Pág. 66)*
	1AH350	HEXAGONAL L=350 mm (Pág. 66) *HEXAGONAL SHANK ADAPTER L=350 mm (Pag. 66)* *QUEUE HEXAGONAL L=350 mm (Pág. 66)*

Siempre que necesitemos taladrar con alargadores de más de 200 mm de largo, deberemos utilizar un taladrado previo con los adaptadores de menor longitud, a fin de evitar roturas derivadas de las tensiones que se producen en el mismo. De esta forma se aumenta la vida útil tanto del alargador como de la corona. No seguir estas recomendaciones se considerará como utilización inadecuada del producto, perdiendo la cobertura de la garantía.

Whenever you need to drill with extensions more than 200 mm in length, you must pre-drill with adapters of lesser length in order to avoid breakage caused by the stresses that such drilling will cause. This increases the service life of both the extension and the drill bit. Failure to follow these recommendations will be considered improper use of the product, invalidating the warranty coverage.

Lorsque vous devez percer avec des rallonges de plus de 200 mm de long, il faut utiliser une perceuse au préalable avec les adaptateurs de moindre longueur afin d'éviter des cassures dérivées des tensions. Ainsi, il est possible d'augmenter la vie utile aussi bien de la rallonge que de la couronne. Ne pas suivre ces recommandations sera considéré comme une utilisation on adaptée du produit, ce dernier perdra donc la couverture de la garantie.



ADAPTADOR SDS-PLUS PARA CORONA M16

SDS-PLUS SHANK ADAPTER FOR M16 HOLE SAW • QUEUE SDS-PLUS POUR TRÉPAN M16

SDS plus · M16

L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
100	1	1AS100	**31,57**
200	1	1AS200	**48,56**
350	1	1AS350	**65,22**



NOTA: No se recomienda el uso del adaptador de 350 mm con coronas mayores de 45 mm de diámetro. / *Not recommended adapter of 350 mm for more than 45 mm. diameter hole saws. / Adaptateur 350 mm non recommendé avec trépans supérieures á 45 mm.*

NOTA: Para realizar un trabajo de diámetro mayor a 45 mm se recomienda el uso del sistema SDS-MAX. / *For diameters bigger than 45 mm, SDS-MAX system recommended / Pour des travaux supérieures á 45 mm, système recommendé SDS-MAX.*

ADAPTADOR MANGO HEXAGONAL PARA CORONA M16

HEXAGONAL SHANK ADAPTER FOR M16 HOLE SAW • QUEUE HEXAGONALE POUR TRÉPAN M16

M16

L1 (mm)	⬡ Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
80	**11**	1	1AH080	**27,82**
200	**11**	1	1AH200	**34,83**
350	**11**	1	1AH350	**47,18**



BROCA DE CENTRAR PARA CORONA M16

CENTRE DRILL BIT FOR M16 HOLE SAW • FORET DE CENTRAGE POUR TRÉPAN M16

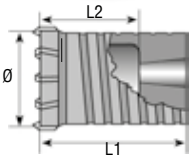
L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8x120	1	1AP09120	**6,88**



CORONA SISTEMA 1:8 PARA TRABAJOS INTENSIVOS

1:8 SYSTEM INTENSIVE USE HOLE SAW
TRÉPAN SYSTÈME 1:8 POUR DES TRAVAUX INTENSIFS







MD

1:8

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Z	Cod.	€/Unid.
35,00	100	75	1	6	1CC035	**118,85**
40,00	100	75	1	6	1CC040	**121,50**
45,00	100	75	1	6	1CC045	**128,04**
50,00	100	75	1	6	1CC050	**132,43**
60,00	100	75	1	6	1CC060	**165,07**
66,00	100	75	1	6	1CC066	**165,88**
80,00	100	75	1	8	1CC080	**188,89**
90,00	100	75	1	8	1CC090	**219,98**
100,00	100	75	1	8	1CC100	**253,86**



Adaptador
Adapter
Adaptateur



Cuña
Wedge
Cale

Broca Centradora
Center Drill
Foret de Centrage

Corona
Hole Saw Core
Trépan

ADAPTADOR SISTEMA 1:8 PARA TRABAJOS INTENSIVOS

1:8 SYSTEM ADAPTER • ADAPTATEURS SYSTÈME 1:8



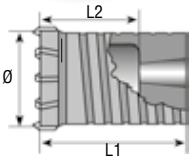
Entrada cónica 1:20 / *Tapper insert 1:20* / *Entrée conique 1:20*

	Anclaje *Shank*	USO NORMAL / *NORMAL USING UTILISATION HABITUELLE* L1 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
Adaptador / *Adapter* / *Adaptateur* 	**SDS-MAX**	250	1	1AB3210	**79,39**
	**ESTRIADO**	250	1	1AB4210	**82,76**
Broca Centradora / *Center Drill* *Foret de Centrage* 	-	12 x 135	1	1AB6135	**14,50**
Cuña / *Wedge* / *Cale* 	-	-	1	1ABCU01	**18,27**

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

CORONA SISTEMA RL PARA INSTALACIÓN DE AIRE ACONDICIONADO
SPECIAL RL SYSTEME FOR AIR CONDITIONING INSTALLATION
SYSTÈME SPÉCIAL RL POUR L´INSTALLATION DE CLIMATISATION





MD

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Z	Cod.	€/Unid.
50,00	105	80	1	8	RL0050	**101,21**
55,00	105	80	1	8	RL0055	**107,16**
60,00	105	80	1	12	RL0060	**113,12**
65,00	105	80	1	12	RL0065	**119,06**

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

ADAPTADOR SDS-PLUS
SDS-PLUS ADAPTER • ADAPTATEUR SDS-PLUS



L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
105	1	RL2105	**35,72**
300	1	RL2300	**69,06**

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

PUNZÓN GUÍA
PUNCH GUIDE • POINÇON GUIDE



Uds. / *Pcs.*	Cod.	€/Unid.
1	RL3003	**16,96**

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

MODO DE EMPLEO *USING GUIDE • UTILISATION*



- Introducir el adaptador en la corona.
- *Insert the adapter on the hole saw.*
- *Introduir l´adaptateur dans le trépan.*



- Con una presión suave, introducir el punzón en el adaptador.
- *Fix the punch guide softly on the adapter.*
- *Fixez le poinçon guide dans l´adaptateur doucement.*



- Corona lista para realizar el trabajo.
- *Hole saw ready to work.*
- *Trépan préparé pour réaliser le travail.*



- Después de taladrar 5 mm, sacar el punzón y continuar el trabajo.
- *After drilling 5 mm, pull off the punch guide and continue working.*
- *Aprés percer 5 mm, enlever le poinçon et continuer le travail.*

CORONA UNIVERSAL
UNIVERSAL HOLE SAW CORE • TRÉPAN UNIVERSEL







Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
33,00	65	55	1	1CU033	**14,31**
53,00	65	55	1	1CU053	**15,30**
67,00	65	55	1	1CU067	**17,15**
73,00	65	55	1	1CU073	**20,41**
83,00	65	55	1	1CU083	**24,54**

ACCESORIOS
ACCESSORIES • ACCESOIRES

L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
Plato de Sujeción / *Locating Plate* / *Base Pour Fixer Le Trépan*			
33-83	1	1AP10	**15,87**
Broca Centradora / *Center Drill* / *Foret Centrage*			
9,00	1	1AP09	**7,26**



Revoluciones Máximas Recomendadas: 1.500 R.P.M. / *Maximum Recomended Speed: 1.500 R.P.M.* / *Maximum Vitesse Recommendée: 1.500 R.P.M.*

NOTA: Los accesorios se venden por separado / *Los accesorios se venden por separado* / *Los accesorios se venden por separado*

SISTEMA S94 *S94 SYSTEM • SYSTÉME S94*

Para taladrados en profundidades de hasta 2 metros / *Drilling depht up to 2 metres.* / *Pour perçages jusqu'à 2 mètres de profondeur*
Rango de diámetros desde 35 mm a 150 mm / *Range of diameters from 35 mm. to150 mm.* / *Niveau de diamètres entre 35 mm et 150 mm*



ADAPTADORES SISTEMA S94 *S94 SYSTEM ADAPTERS* *ADAPTATEURS SYSTÉME S94*
CORONA *HOLE SAW* *TRÉPAN*
BROCA DE CENTRAR *CENTRE DRILL BIT* *FORET DE CENTRAGE*



ADAPTADORES SISTEMA S94 *S94 SYSTEM ADAPTERS* *ADAPTATEURS SYSTÉME S94*
PROLONGADORES *EXTENSION* *PROLONGATEURS*
HÉLICES EXTRACTORA S94 *S94 SCREW EXTRACTORS* *HÉLICE D´EXTRACTION*
BROCA TIPO P *P TYPE DRILL BIT* *FORET TYPE P*
BROCA DE CENTRAR *CENTRE DRILL BIT* *FORET DE CENTRAGE*



ADAPTADORES SISTEMA S94 *S94 SYSTEM ADAPTERS* *ADAPTATEURS SYSTÉME S94*
PROLONGADORES *EXTENSION* *PROLONGATEURS*
HÉLICES EXTRACTORA S94 *S94 SCREW EXTRACTORS* *HÉLICE D´EXTRACTION*
PROLONGADORES *EXTENSION* *PROLONGATEURS*
HÉLICES EXTRACTORA S94 *S94 SCREW EXTRACTORS* *HÉLICE D´EXTRACTION*
BROCA TIPO S *S TYPE DRILL BIT* *FORET TYPE S*
BROCA DE CENTRAR *CENTRE DRILL BIT* *FORET DE CENTRAGE*

BROCAS Y CORONAS SISTEMA S94

HOLE SAWS AND DRILL BITS FOR S94 SYSTEM • TRÉPANS ET FORETS PUOR SYSTÈME S94

CORONA *HOLE SAW • TRÉPAN*



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
40,00	100	70	1	1CI040	**147,24**
50,00	100	70	1	1CI050	**164,18**
60,00	100	70	1	1CI060	**190,04**
65,00	100	70	1	1CI065	**197,44**
80,00	100	70	1	1CI080	**231,17**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
90,00	100	70	1	1CI090	**266,53**
100,00	100	70	1	1CI100	**308,97**
110,00	100	70	1	1CI110	**327,84**
125,00	100	70	1	1CI125	**460,59**

BROCA TIPO S *S TYPE DRILL BIT • FORET TYPE S*



Ø (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
35,00	3	1	1S94S035	**231,26**
42,00	3	1	1S94S042	**280,05**
45,00	3	1	1S94S045	**308,11**
52,00	3	1	1S94S052	**350,19**
55,00	3	1	1S94S055	**351,81**
60,00	4	1	1S94S060	**406,49**
65,00	4	1	1S94S065	**476,29**
70,00	4	1	1S94S070	**504,71**

Ø (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
80,00	4	1	1S94S080	**539,50**
90,00	6	1	1S94S090	**623,17**
100,00	6	1	1S94S100	**672,32**
110,00	6	1	1S94S110	**840,20**
125,00	6	1	1S94S125	**952,57**
135,00	6	1	1S94S135	**1.281,56**
150,00	6	1	1S94S150	**1.414,23**

BROCA TIPO P *P TYPE DRILL BIT • FORET TYPE P*



Ø (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
35,00	3	1	1S94P035	**252,74**
42,00	3	1	1S94P042	**305,74**
52,00	3	1	1S94P052	**385,69**
55,00	3	1	1S94P055	**388,91**
60,00	6	1	1S94P060	**449,19**
65,00	6	1	1S94P065	**519,00**

Ø (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
70,00	6	1	1S94P070	**553,44**
80,00	6	1	1S94P080	**588,32**
90,00	6	1	1S94P090	**630,17**
100,00	6	1	1S94P100	**672,25**
110,00	6	1	1S94P110	**840,90**
125,00	6	1	1S94P125	**967,49**

Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

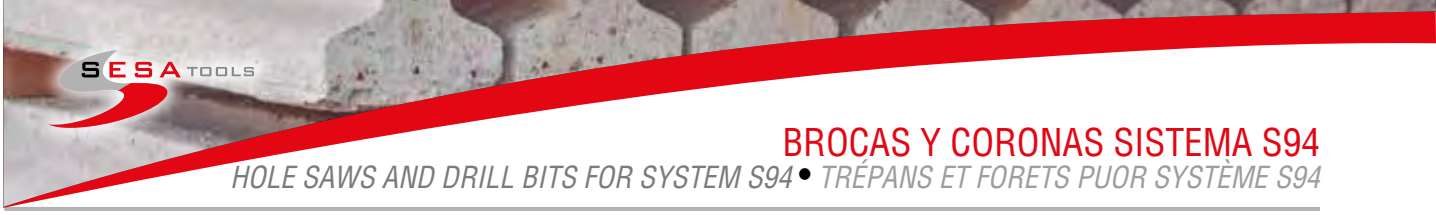
	Anclaje / Shank	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
	**SDS-PLUS**	110	1	1AI1110	**117,96**
	**SDS-TOP***	190	1	1AI2190	**123,44**
	**SDS-MAX**	190	1	1AI3190	**121,84**
		400	1	1AI3400	**134,62**
		575	1	1AI3575	**143,47**
		975	1	1AI3975	**217,17**
	**ESTRIADO**	175	1	1AI4175	**105,51**
	**Hitachi DH 38 YB DH 45 SA, H 41 SA, H 65 SB VRY38, DH 28 Y, Maki-ta 8022B-8035B Ryobi CH 450 P, ER 382 K**	170	1	1AI5170	**126,72**
	**Duss P20 - P30 - P60 - P90 P80, PK 100**	210	1	1AI6210	**126,72**
	**Kango 950; 950x 900x, 928 1400**	200	1	1AI7200	**126,72**
	**Wacker E HUB 10 Y EH8/220, BHB 14**	185	1	1AI8185	**126,72**

*Hasta fin de existencias / *Until end of stock* / *Jusqu'à fin de stocks*

PROLONGADORES
EXTENSION • PROLONGATEURS



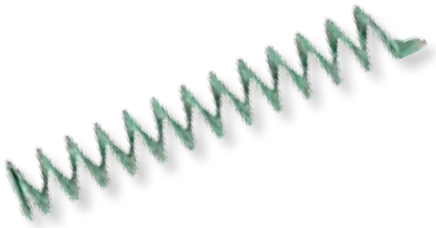
Uso con / *Using with*	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
	300	1	1PR300	**175,09**
	450	1	1PR400	**199,19**



HÉLICES EXTRACTORAS S94
S94 SCREW EXTRACTORS • HÉLICES D´EXTRACTION S94

Ø (mm)	Rango / *Range*	Uds. / *Pcs.*	Cod.	€/Unid.
42,00	Tipo S y P	1	1S94H01	**98,15**
45,00	Tipo S	1	1S94H02	**114,60**
52,00 - 55,00 - 60,00	Tipo S y P	1	1S94H03	**163,20**
65,00 - 70,00	Tipo S	1	1S94H04	**264,86**
80,00	Tipo S	1	1S94H05	**490,14**

Hasta fin de existencias / *Until end of stock* / *Jusqu'à fin de stocks*



Ø (mm)	Rango / *Range*	Uds. / *Pcs.*	Cod.	€/Unid.
32,00	32 - 45	1	1S94H06	**138,83**
47,00	52 - 60	1	1S94H07	**181,15**
63,00	64 - 70	1	1S94H08	**220,75**
78,00	80 - 150	1	1S94H09	**305,75**



BROCA DE CENTRAR
CENTRE DRILL BIT • FORET DE CENTRAGE



Uso con / *Using with*	L1 (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
	12,00	155	1	1BC12155	**40,45**
	16,00	124	1	1BC16124	**40,45**
	16,00	174	1	1BC16174	**43,48**

ELEMENTO DE UNIÓN *THREADED BOLT • ÉLÉMENT D'UNION*

Uds. / *Pcs.*	Cod.	€/Unid.
1	1EU001	**25,49**



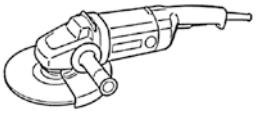
GRASA PARA ROSCA 120 GR
THREAD GREASE 120 GR • GRAISSE 120 GR

Uds. / *Pcs.*	Cod.	€/Unid.
1	1GR001	**11,21**



CONSTRUCCIÓN B5B-S10
CONSTRUCTION B5B-S10 • CONSTRUCTION B5B-S10





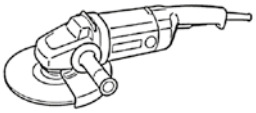
Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
115	22,23	1	1130115022	**16,88**
125	22,23	1	1130125022	**20,00**

Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
180	22,23	1	1130180022	**40,77**
230	22,23	1	1130230022	**42,94**

CONSTRUCCIÓN FÓRMULA 1
CONSTRUCTION FORMULA 1 • CONSTRUCTION FORMULA 1

ADVANCE MÁXIMO RENDIMIENTO



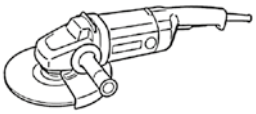


Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
115	22,23	1	1160115022	**75,26**
125	22,23	1	1160125022	**86,32**
150	22,23	1	1160150022	**130,60**

Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
180	22,23	1	1160180022	**152,74**
230	22,23	1	1160230022	**182,96**

TG SUPER THIN PORCELANATO
TG SUPER THIN PORCELANICS • TG SUPER THIN CARRELAGE





Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
115	22,23	1	1500115022	**53,64**
115	22,23	1	1500115022 FL*	**67,04**
125	22,23	1	1500125022	**75,26**
125	22,23	1	1500125022 FL*	**91,63**

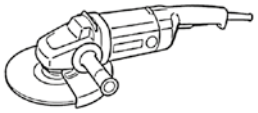
Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
150	22,23	1	1500150022	**101,82**
180	22,23	1	1500180022	**130,60**
230	22,23	1	1500230022	**188,16**

*FL: Alma reforzada (evita holguras en máquinas desgastadas) / **FL: Reinforced core (avoids looseness in worn machines) / *Ame renforcée (évite le jeu sur les machines usées)*

CANTERO TITAN TURBO-I

STONE TITAN TURBO-I • TITAN TURBO-I POUR PIERRE





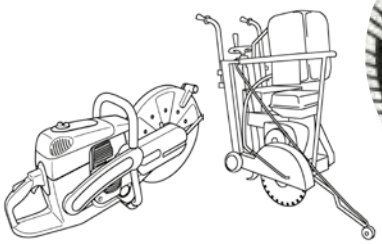
Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
115	22,23	1	1520115022	**84,11**
125	22,23	1	1520125022	**101,82**
150	22,23	1	1520150022	**141,66**

Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
180	22,23	1	1520180022	**172,67**
230	22,23	1	1520230022	**194,79**

TITAN TURBO-II PARA CORTADORA

TITAN TURBO-II FOR LIGHTWEIGHT FLOOR SAWS
TITAN TURBO-II POUR SCIES Á CHARIOT





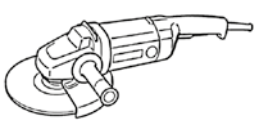
Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
300	20,00	1	1530300020	**329,82**
300	22,23	1	1530300022	**329,82**
300	25,40	1	1530300025	**329,82**

Ø (mm)	Eje	Uds. / *Pcs.*	Cod.	€/Unid.
350	20,00	1	1530350020	**438,28**
350	22,23	1	1530350022	**438,28**
350	25,40	1	1530350025	**438,28**

SET DISCOS DE DIAMANTE 4+4 (B5B-S10 + TG SUPERTHIN)

DIAMOND DISCS SET 4+4 (B5B-S10 + TG SUPERTHIN)
COFFRET DISQUES DIAMANTÉS 4+4 (B5B-S10 + TG SUPERTHIN)

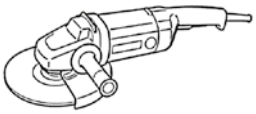




Calidad Quality	Ø (mm)	Eje	Uds. *Pcs.*	Cod.	€/Unid.
B5B-S10	**115**	22,23	4	K1101150	**278,04**
TGSUPERTHIN	**115**	22,23	4		

PLATO DIAMANTADO HORMIGÓN
GRINDING WHEELS FOR CONCRETE
MEULE POUR DÉGROSSISSEMENT POUR BÉTON



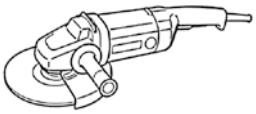


Ø (mm)	Conexión	Uds. / *Pcs.*	Cod.	€/Unid.
100	M14	1	213010001400	**219,14**
125	M14	1	213012501400	**307,68**




PLATO DIAMANTADO PIEDRA NATURAL
GRINDING WHEELS FOR NATURAL STONE
MEULE POUR DÉGROSSISSEMENT POUR PIÉRRE NATURELLE





Ø (mm)	Conexión	Uds. / *Pcs.*	Cod.	€/Unid.
100	M14	1	214010001400	**263,42**
125	M14	1	214012501400	**351,96**



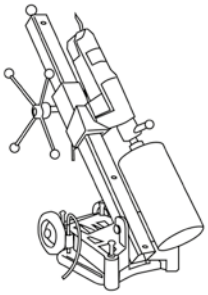

CORONAS PERFORACIÓN DIAMANTE B.K.1

B.K.1 DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.1



INSERCIÓN ROSCA INTERNA 1/2" GAS

INTERNAL THREAD 1/2" GAS
FILET 1/2" GAS







			SEGMENTADO / *SEGMENTS*					
Ø (mm)	**Long. / *Lenght* (mm)**	**Z**	**Largo / *Long* (mm)**	**Ancho / *Width* (mm)**	**Altura / *Height* (mm)**	**Uds. / *Pcs.***	**Cod.**	**€/Unid.**
22	300	1	-	2,00	8,00	1	6010022	**163,31**
25	300	1	-	2,00	8,00	1	6010025	**170,57**
32	300	4	17,00	3,00	8,00	1	6010032	**185,45**
35	300	3	25,00	3,50	8,00	1	6010035	**188,45**
42	300	4	25,00	3,50	10,00	1	6010042	**206,35**
52	300	5	25,00	3,50	10,00	1	6010052	**221,79**
62	400	5	25,00	3,50	10,00	1	6010062	**254,12**

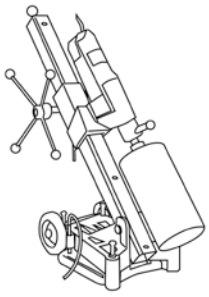
CORONAS PERFORACIÓN DIAMANTE B.K.2

B.K.2 DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.2



INSERCIÓN ROSCA INTERNA 1 1/4" UNC

INTERNAL THREAD 1.1/4"
FILET 1.1/4" UNC







SEGMENTADO / *SEGMENTS*

Ø (mm)	Long. / *Lenght* (mm)	Z	Largo / *Long* (mm)	Ancho / *Width* (mm)	Altura / *Height* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
52	400	5	25,00	3,50	10,00	1	6050052	**221,78**
57	400	5	25,00	3,50	10,00	1	6050057	**232,54**
62	400	5	25,00	3,50	10,00	1	6050062	**254,08**
72	400	6	25,00	3,50	10,00	1	6050072	**286,37**
82	400	7	25,00	3,50	10,00	1	6050082	**320,82**
92	400	8	25,00	3,50	10,00	1	6050092	**363,90**
102	400	9	25,00	4,00	10,00	1	6050102	**385,36**
112	400	9	25,00	4,00	10,00	1	6050112	**428,49**
122	400	10	25,00	4,00	10,00	1	6050122	**495,23**
132	400	10	25,00	4,00	10,00	1	6050132	**495,23**
162	400	12	25,00	4,00	10,00	1	6050162	**630,89**
230	400	17	25,00	4,00	10,00	1	6050230	**1026,57**

NOVEDADES N

- ESTUCHES brocas pala

NEW FEATURES N

- ***Flat drill bit SETS***

NOUVEAUTÉS N

- *COFFRETS méche plate*



WOOD-BOIS



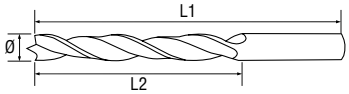


MADERA

SESA TOOLS®

BROCA 3 PUNTAS: BLISTER RÍGIDO
BRAND POINT DRILL BIT: RIGID PLASTIC BLISTER • FORET 3 POINTES: BLISTER RIGIDE A PLASTIQUE



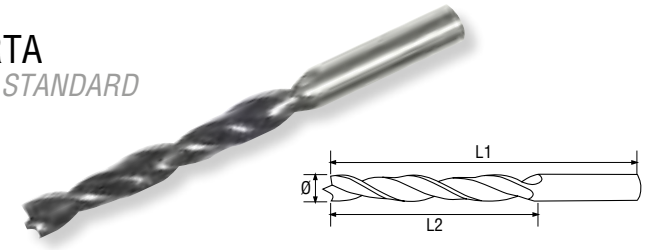


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	70	46	1	102003BL	**0,99**
4,00	80	52	1	102004BL	**1,03**
5,00	90	60	1	102005BL	**1,07**
6,00	100	66	1	102006BL	**1,11**
8,00	120	80	1	102008BL	**1,49**
10,00	133	90	1	102010BL	**1,85**
12,00	155	102	1	102012BL	**2,49**



BROCA 3 PUNTAS USO GENERAL SERIE CORTA
STANDARD BRAD POINT DRILL BIT • FORET 3 POINTES STANDARD



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	70	46	1	102003	**0,57**
4,00	80	52	1	102004	**0,64**
5,00	90	60	1	102005	**0,72**
6,00	100	66	1	102006	**0,95**
7,00	110	72	1	102007	**1,10**
8,00	120	80	1	102008	**1,35**
9,00	130	87	1	102009	**1,55**
10,00	133	90	1	102010	**1,67**
11,00	150	100	1	102011	**2,00**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12,00	155	102	1	102012	**2,27**
13,00	160	102	1	102013	**2,36**
14,00	160	102	1	102014	**2,57**
15,00	165	107	1	102015	**2,89**
16,00	165	107	1	102016	**3,56**
18,00	200	130	1	102018	**4,59**
20,00	200	130	1	102020	**5,89**
22,00	200	130	1	102022	**7,30**

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS



BASIC BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS WHITE	HSS	+	**BASIC**		+	**MADERA**		5 - 6 - 8 mm	19CB339	**15,98**



STANDARD BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS G	HSS-G	+	**GRANITO**		+	**MADERA**		5 - 6 - 8 mm	19CM339	**22,08**

ADVANCE BOX (9 UDS. / *PCS.*)



Composición / *Contains* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS CO	HSS-CO 5%	+	**TORNADO**		+	**MADERA**		5 - 6 - 8 mm	19CA339	**30,58**

ESTUCHE BROCAS 3 PUNTAS
BRAD POINT DRILL BIT SET
COFFRET FORET 3 POINTES STANDARD

Ref.	Ø (mm)
333	3 - 10 x 1,0 mm

Uds. / *Pcs.*	Cod.	€/Unid.
8	196333	**14,49**

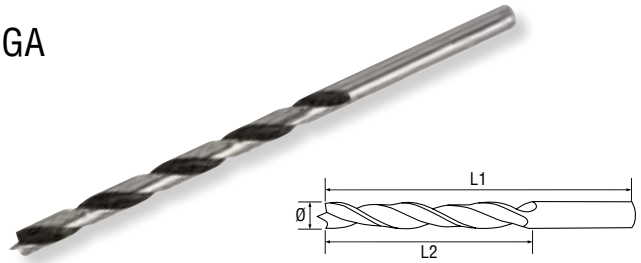


BROCA 3 PUNTAS USO GENERAL SERIE LARGA
STANDARD BRAD POINT DRILL BIT LONG SERIE
ORET 3 POINTES STANDARD SÉRIE LONGUE









Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	245	160	1	1021L06	**2,17**
7,00	245	160	1	1021L07	**2,45**
8,00	245	160	1	1021L08	**2,79**
9,00	245	160	1	1021L09	**3,00**
10,00	245	160	1	1021L10	**3,41**
11,00	245	200	1	1021L11	**4,09**
12,00	245	200	1	1021L12	**4,23**

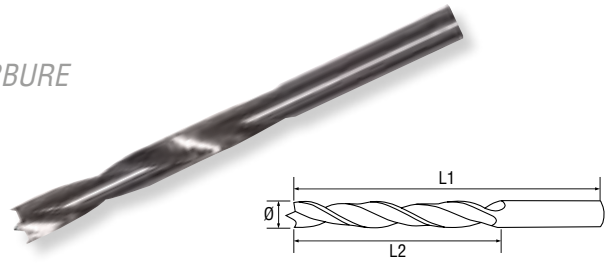
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
13,00	245	200	1	1021L13	**4,43**
14,00	245	200	1	1021L14	**4,97**
15,00	245	200	1	1021L15	**5,52**
16,00	245	200	1	1021L16	**6,13**
18,00	245	200	1	1021L18	**6,81**
20,00	245	200	1	1021L20	**8,58**

BROCA 3 PUNTAS METAL DURO SERIE CORTA
HARD METAL POINT DRILL BIT • FORET 3 POINTES AU CARBURE









Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	76	32	1	10240300	**4,18**
3,50*	76	35	1	10240350	**4,56**
4,00	76	35	1	10240400	**4,58**
5,00	87	50	1	10240500	**4,62**
5,50*	100	55	1	10240550	**4,99**
6,00	100	57	1	10240600	**5,05**
7,00*	100	57	1	10240700	**5,13**

Ø (mm)		L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,00		103	60	1	10240800	**5,27**
9,00	*	103	60	1	10240900	**5,43**
10,00		103	60	1	10241000	**5,98**
10,50	*	103	60	1	10241050	**6,83**
11,00	*	103	60	1	10241100	**7,75**
12,00	*	103	60	1	10241200	**8,83**
13,00	*	103	60	1	10241300	**9,89**

*Hasta fin de existencias / **Until end of stock* / **Jusqu´à épuisement des stocks*

BROCA 3 PUNTAS METAL DURO SERIE CORTA A IZQUIERDAS
HARD METAL POINT DRILL BIT LEFT HAND • FORET 3 POINTES AU CARBURE COUPE À GAUCHE

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	76	32	1	10240300I	**6,38**
3,50	76	35	1	10240350I	**6,44**
5,00	85	50	1	10240500I	**6,51**

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

TOPES DE PROFUNDIDAD PARA BROCAS
DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE



Ø (mm)	Gama de medidas / *Range* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,50	De 2,0 a 3,5	1	Y10035	**3,73**
5,00	De 4,0 a 5,0	1	Y10050	**4,27**
6,50	De 5,5 a 6,5	1	Y10065	**5,07**
8,00	De 7,0 a 8,0	1	Y10080	**5,07**
10,00	De 8,5 a 10,0	1	Y10100	**5,07**
12,00	De 10,5 a 12,0	1	Y10120	**5,07**

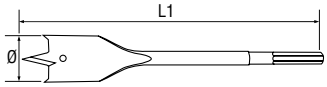
BROCA PALA TIPO B *FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B*











Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
6,00	157	6,5	1	103006	**1,79**
8,00	157	6,5	1	103008	**1,79**
10,00	157	6,5	1	103010	**1,89**
12,00	157	6,5	1	103012	**2,28**
14,00	157	6,5	1	103014	**2,53**
15,00	157	6,5	1	103015	**2,53**
16,00	157	6,5	1	103016	**2,56**
17,00	157	6,5	1	103017	**2,68**
18,00	157	6,5	1	103018	**2,71**
19,00	157	6,5	1	103019	**2,79**
20,00	157	6,5	1	103020	**2,95**
22,00	157	6,5	1	103022	**3,45**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
24,00	157	6,5	1	103024	**3,78**
25,00	157	6,5	1	103025	**3,94**
26,00	157	6,5	1	103026	**4,18**
28,00	157	6,5	1	103028	**4,52**
30,00	157	6,5	1	103030	**4,71**
32,00	157	6,5	1	103032	**4,83**
33,00	157	6,5	1	103033	**5,25**
34,00	157	6,5	1	103034	**5,44**
35,00	157	6,5	1	103035	**6,15**
36,00	157	6,5	1	103036	**6,23**
38,00	157	6,5	1	103038	**6,56**
40,00	157	6,5	1	103040	**6,89**

ESTUCHE BROCAS PALA TIPO B
FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TIPE B



NEW

Ref.	Medidas / *Sizes*	Tipo / *Type*	€/Unid.
PB13	6-8-10-12-13-14-16-18-19-20-22-24-25	B	**34,70**

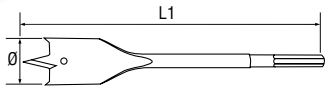
BROCA PALA TIPO C *FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C*











Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
6,00	152	6,5	1	103C06	**2,05**
8,00	152	6,5	1	103C08	**2,05**
9,00	152	6,5	1	103C09	**2,12**
10,00	152	6,5	1	103C10	**2,28**
11,00	152	6,5	1	103C11	**2,46**
12,00	152	6,5	1	103C12	**2,59**
13,00	152	6,5	1	103C13	**2,64**
14,00	152	6,5	1	103C14	**2,77**
15,00	152	6,5	1	103C15	**2,97**
16,00	152	6,5	1	103C16	**3,01**
18,00	152	6,5	1	103C18	**3,09**
19,00	152	6,5	1	103C19	**3,19**
20,00	152	6,5	1	103C20	**3,30**
22,00	152	6,5	1	103C22	**3,54**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
23,00	152	6,5	1	103C23	**3,82**
24,00	152	6,5	1	103C24	**3,98**
25,00	152	6,5	1	103C25	**4,39**
26,00	152	6,5	1	103C26	**4,54**
28,00	152	6,5	1	103C28	**5,02**
30,00	152	6,5	1	103C30	**5,31**
32,00	152	6,5	1	103C32	**5,54**
33,00	152	6,5	1	103C33	**5,76**
34,00	152	6,5	1	103C34	**5,97**
35,00	152	6,5	1	103C35	**6,26**
36,00	152	6,5	1	103C36	**6,61**
38,00	152	6,5	1	103C38	**6,96**
40,00	152	6,5	1	103C40	**7,23**

ESTUCHE BROCAS PALA TIPO C
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TIPE C

Ref.	Medidas / *Sizes*	Tipo / *Type*	€/Unid.
PC13	6-8-10-12-13-14-16-18-19-20-22-24-25	C	**38,89**



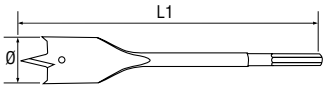
NEW

BROCA PALA EXTENSIBLE
ADJUSTABLE FLAT DRILL BIT • MÉCHE PLATE EXTENSIBLE









Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
15 - 45	120	1	1201031545	**48,12**
22 - 76	155	1	1201032276	**81,22**

ALARGADOR PARA BROCA PALA
FLAT DRILL BIT EXTENSION • RALLONGE POUR MÉCHE PLATE

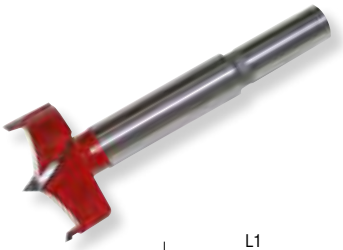




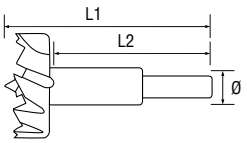
Entrada *Inlet* (mm)	Mango *Shank* (mm)	L1 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
6,35	Hex. 1/4"	305	1	UL00334	**17,69**

BROCA PARA ENCAJE DE BISAGRAS PUNTA Y PRECORTADORES DE MD

FORSTNER TYPE WITH HM TIPS
MÈCHE À FAÇONNER AU CARBURE







Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
20,00	90	8	1	102120	**17,28**
25,00	90	8	1	102125	**19,85**
26,00	90	8	1	102126	**22,61**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
30,00	90	8	1	102130	**23,94**
35,00	90	10	1	102135	**27,56**
40,00	90	10	1	102140	**29,54**

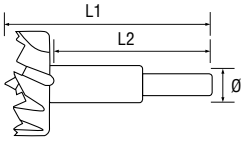
BROCA PARA ENCAJE DE BISAGRAS FORSTNER HSS AFILADO ESPECIAL

FORSTNER TYPE WITH HSS SPECIAL CUT
MÈCHE À FAÇONNER HSS AFILAGE SPÉCIAL



advance
MAXIMO RENDIMIENTO





Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
15,00	90	8	1	12011015	**39,34**
16,00	90	8	1	12011016	**39,34**
18,00	90	8	1	12011018	**39,34**
20,00	90	8	1	12011020	**39,34**
22,00	90	8	1	12011022	**39,34**
25,00	90	8	1	12011025	**40,98**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
26,00	90	8	1	12011026	**42,63**
30,00	90	10	1	12011030	**44,26**
35,00	90	10	1	12011035	**47,54**
40,00	90	10	1	12011040	**54,10**
45,00	90	10	1	12011045	**71,58**
50,00	90	10	1	12011050	**73,81**

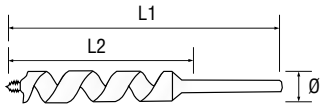
LEWIS *LEWIS • LEWIS*











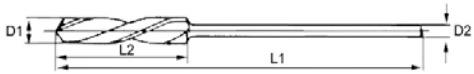
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4,00	200	100	1	12010804200	**14,58**
5,00	200	100	1	12010805200	**15,84**
6,00	200	100	1	12010806200	**15,55**
7,00	200	100	1	12010807200	**16,55**
8,00	200	100	1	12010808200	**15,57**
8,00	300	220	1	12010808300	**27,37**
8,00	450	360	1	12010808450	**29,29**
10,00	200	100	1	12010810200	**15,80**
10,00	300	220	1	12010810300	**27,37**
10,00	450	360	1	12010810450	**31,69**
10,00	600	480	1	12010810600	**49,87**
12,00	200	100	1	12010812200	**17,57**
12,00	300	220	1	12010812300	**29,15**
12,00	450	360	1	12010812450	**33,52**
12,00	600	480	1	12010812600	**51,49**
14,00	200	100	1	12010814200	**18,75**
14,00	300	220	1	12010814300	**32,75**
14,00	450	360	1	12010814450	**35,55**
14,00	600	480	1	12010814600	**55,84**
16,00	200	100	1	12010816200	**20,44**
16,00	300	220	1	12010816300	**34,96**
16,00	450	360	1	12010816450	**43,09**
16,00	600	480	1	12010816600	**59,03**
18,00	200	100	1	12010818200	**23,20**
18,00	300	220	1	12010818300	**38,99**
18,00	450	360	1	12010818450	**44,84**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
18,00	600	480	1	12010818600	**65,39**
20,00	200	100	1	12010820200	**23,57**
20,00	300	220	1	12010820300	**42,10**
20,00	450	360	1	12010820450	**46,84**
20,00	600	480	1	12010820600	**67,86**
22,00	200	100	1	12010822200	**26,74**
22,00	300	220	1	12010822300	**49,69**
22,00	450	360	1	12010822450	**52,44**
22,00	600	480	1	12010822600	**72,63**
24,00	200	100	1	12010824200	**30,46**
24,00	300	220	1	12010824300	**45,28**
24,00	450	360	1	12010824450	**57,16**
24,00	600	480	1	12010824600	**76,59**
25,00	450	360	1	12010825450	**57,36**
26,00	200	100	1	12010826200	**36,33**
26,00	300	220	1	12010826300	**58,51**
26,00	450	360	1	12010826450	**64,52**
26,00	600	480	1	12010826600	**80,69**
28,00	200	100	1	12010828200	**40,07**
28,00	300	220	1	12010828300	**66,47**
28,00	450	360	1	12010828450	**72,67**
28,00	600	480	1	12010828600	**91,29**
30,00	200	100	1	12010830200	**47,01**
30,00	300	220	1	12010830300	**78,08**
30,00	450	360	1	12010830450	**83,64**
30,00	600	480	1	12010830600	**102,56**

BROCA PARA ENCOFRAR CILÍNDRICA
SHUTTERING STRAIGHT DRILL-BIT
FORET POUR COFFRAGE



DIN 7490



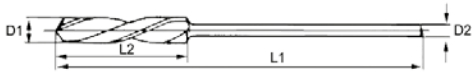
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	400	100	1	12011108400	**14,36**
8,00	600	100	1	12011108600	**14,77**
8,00	800	100	1	12011108800	**16,41**
10,00	400	100	1	12011110400	**16,00**
10,00	600	100	1	12011110600	**16,75**
10,00	800	100	1	12011110800	**18,80**
12,00	400	100	1	12011112400	**19,14**
12,00	600	100	1	12011112600	**19,96**
12,00	800	100	1	12011112800	**22,01**
14,00	400	100	1	12011114400	**22,09**
14,00	600	100	1	12011114600	**22,77**
14,00	800	100	1	12011114800	**24,89**
16,00	400	100	1	12011116400	**24,14**
16,00	600	100	1	12011116600	**24,61**
16,00	800	100	1	12011116800	**26,94**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
18,00	400	100	1	12011118400	**31,86**
18,00	600	100	1	12011118600	**34,12**
18,00	800	100	1	12011118800	**37,74**
20,00	400	100	1	12011120400	**38,50**
20,00	600	100	1	12011120600	**40,13**
20,00	800	100	1	12011120800	**42,60**
22,00	400	100	1	12011122400	**45,87**
22,00	600	100	1	12011122600	**47,18**
22,00	800	100	1	12011122800	**49,57**
24,00	400	100	1	12011124400	**54,70**
24,00	600	100	1	12011124600	**58,59**
24,00	800	100	1	12011124800	**60,37**
26,00	400	100	1	12011126400	**65,17**
28,00	400	100	1	12011128400	**78,01**
30,00	400	100	1	12011130400	**91,41**

BROCA PARA ENCOFRAR SDS-PLUS
SHUTTERING SDS-PLUS DRILL-BIT
FORET POUR COFFRAGE SDS-PLUS



DIN 7490 SDS plus



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
10,00	400	100	1	12011210400	**33,33**
10,00	600	100	1	12011210600	**34,01**
12,00	400	100	1	12011212400	**36,00**
12,00	600	100	1	12011212600	**36,95**
12,00	800	100	1	12011212800	**39,88**
14,00	400	100	1	12011214400	**29,81**
14,00	600	100	1	12011214600	**30,44**
14,00	800	100	1	12011214800	**34,51**
16,00	400	100	1	12011216400	**34,23**
16,00	600	100	1	12011216600	**34,51**
16,00	800	100	1	12011216800	**37,04**
18,00	400	100	1	12011218400	**51,35**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
18,00	600	100	1	12011218600	**53,95**
18,00	800	100	1	12011218800	**58,28**
20,00	400	100	1	12011220400	**59,36**
20,00	600	100	1	12011220600	**61,01**
20,00	800	100	1	12011220800	**64,55**
22,00	400	100	1	12011222400	**68,74**
22,00	600	100	1	12011222600	**69,96**
22,00	800	100	1	12011222800	**72,26**
24,00	400	100	1	12011224400	**78,69**
24,00	600	100	1	12011224600	**84,09**
24,00	800	100	1	12011224800	**85,76**

AVELLANADOR *COUNTERSINK • FRAISE À CHANFREINER*



Broca / Drill Bit Ø (mm)	Avellanador *Countersink* Bit Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
3,00	12,00	1	1201090312	6,72
4,00	12,00	1	1201090412	6,72
5,00	12,00	1	1201090512	6,72
6,00	12,00	1	1201090612	6,72
3,00	16,00	1	1201090316	8,60

Broca / Drill Bit Ø (mm)	Avellanador *Countersink* Bit Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
4,00	16,00	1	1201090416	8,60
5,00	16,00	1	1201090516	8,60
6,00	16,00	1	1201090616	8,60
8,00	16,00	1	1201090816	8,60

BROCA PARA ENSAMBLAJE
ASSEMBLING DRILLS • MÈCHE ÉTAGÉE POUR VIS D'ASSEMBLAGE



Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
5 x 50	86	1	103J05	4,79
7 x 50	109	1	103K07	5,58

BARRENA *GIMLET • VRILLE*

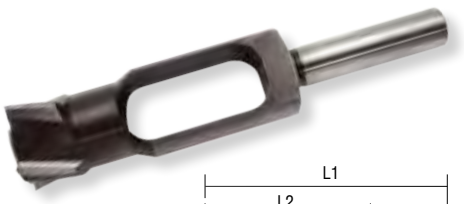


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	106	32	1	12010302	7,80
3,00	112	34	1	12010303	9,21
4,00	137	40	1	12010304	12,16

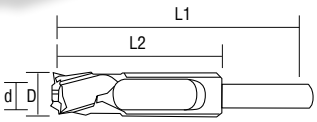
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
5,00	142	46	1	10210305	12,94
6,00	162	49	1	12010306	15,61
8,00	162	63	1	12010308	18,43

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

FRESA ESPECIAL TAPONES
PLUG CUTTER • MÈCHE À BOUCHONNER





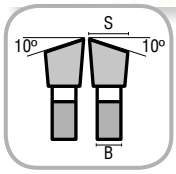


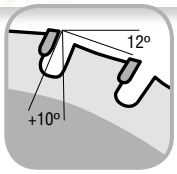
d (mm)	D (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
10,00	20,00	140	112	1	12010710	31,21
12,00	23,00	140	135	1	12010712	36,84
15,00	27,00	140	160	1	12010715	48,60

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

DISCO PARA MADERA BASTA
ROUGH WOOD CIRCULAR SAWBLADES
DISQUE POUR BOIS A TEXTURE GROSSIERE





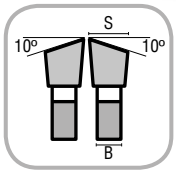


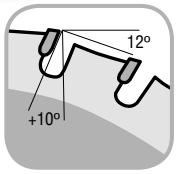
MD

Ø (mm)	S Grosor / *Thickness* (mm)	B Grosor / *Thickness* (mm)	Ø Eje / Axe (mm)	Z	Cod.	€/Unid.
250	3,2	2,2	30	60	2DM25060	**53,06**
300	3,2	2,2	30	72	2DM30072	**60,89**

DISCO PARA MADERA FINA
FINE WOOD CIRCULAR SAWBLADES
DISQUE POUR BOIS A TEXTURE FINE



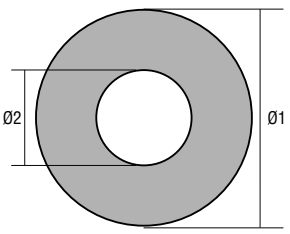




MD

Ø (mm)	S Grosor / *Thickness* (mm)	B Grosor / *Thickness* (mm)	Ø Eje / Axe (mm)	Z	Cod.	€/Unid.
250	3,2	2,2	30	80	2DM25080	**57,46**
300	3,2	2,2	30	96	2DM30096	**71,91**

ANILLOS REDUCTORES
REDUCTIONS RINGS • BAGUES DE RÉDUCTION



Ø1 / Ø2 (mm)	Cod.	€/Unid.
30 / 25	2DR3025	**4,13**
30 / 20	2DR3020	**4,13**
30 / 18	2DR3018	**4,13**
30 / 16	2DR3016	**4,13**

NOVEDADES N

- Broca de PUNTEAR
- ESTUCHES para coronas con base ELECTROMÁGNETICA

NEW FEATURES N

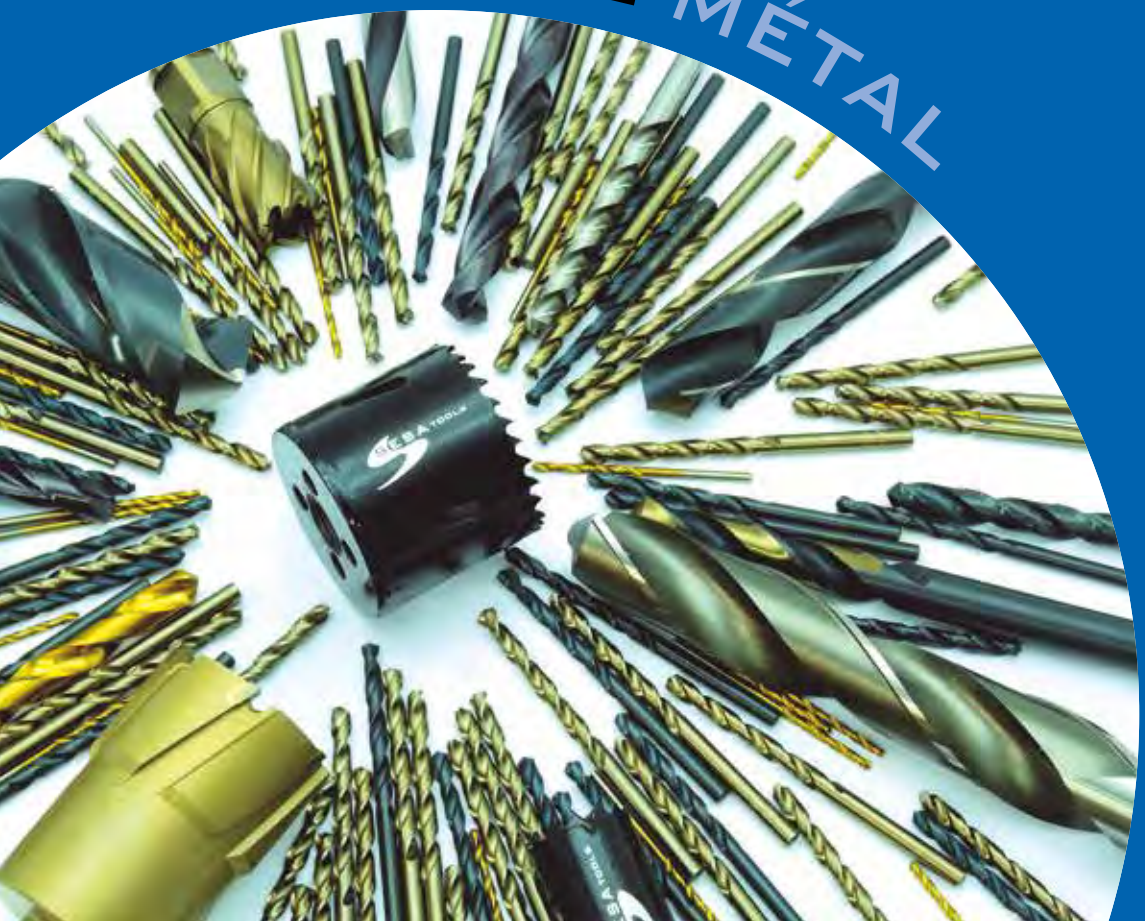
- ***SPOTTING drill***
- ***ELECTROMAGNETIC core bit SETS***

NOUVEAUTÉS N

- ***Foret á CENTRER***
- ***COFFRETS sciés ELECTROMAGNETIQUES***



METAL-MÉTAL





METAL

SESA TOOLS®

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS

APPLICATION GUIDE AND CUTTING SPEED

TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ

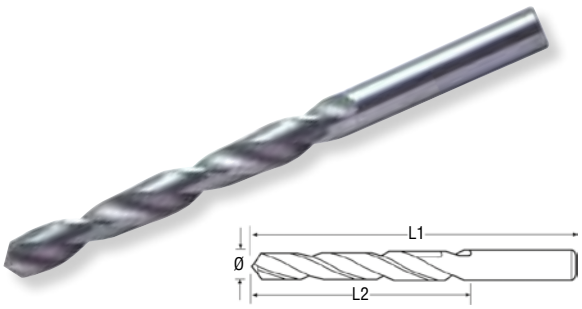


MATERIAL / *MATERIAL* / *MATIERE*		Resistencia / *Ressistance* *Resistance* N/mm	DIN 338 MDI Pág. 95	DIN 6537K - 3XØ MD Pág. 96	DIN 6537L - 5XØ MD Pág. 97
ACEROS *STEELS • ACIERS*	Decoletaje *Machining • Décolletage*	<500	70-80	80-90	80-90
	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850	55-70	60-80	60-80
	Acero para herramientas *Steel for tools • Acier pour outils*	<1200	50-60	55-70	55-70
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1400	30-40	34-45	34-45
ACEROS INOXIDABLES *STAINLESS STEEL ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850	22-27	25-30	25-30
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1200	22-27	25-30	25-30
FUNDICIÓN *CAST IRON • FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700	70-90	80-100	80-100
	Fundición dura *Hard cast iron • Fonte dur*	<1000		-	-
ALUMINIO *ALUMINIUM • ALUMINIUM*	Puro *Pure • Pure*	<350	150-180	170-200	170-200
	Si < 10%	<600	150-150	170-170	170-170
	Si > 10%	<600	120-150	135-170	135-170
	Zamak *Zamak • Zamak*	<600	160-160	180-180	180-180
COBRE *COPPER • CUIVRE*	Bronce *Bronze • Bronze*	<350			
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700	35-70	50-80	50-80
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700	37-70	40-80	40-80
	Latón duro *Hard Brass • Laiton dur*	<700	120-120	135-135	135-135
	Latón tenaz *Tough Brass • Laiton tenace*	<700	70-70	80-80	80-80
TITANIO *TITANIUM • TITANE*	Puro *Pure • Pure*	<700			
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1200			
SINTÉTICOS *PLASTICS • PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-			
	Duroplásticos *Hard-plastics • Duroplastique*	-			

M/DURO INTEGRAL DIN 338 N

DIN 338 N HM

DIN 338 N HM



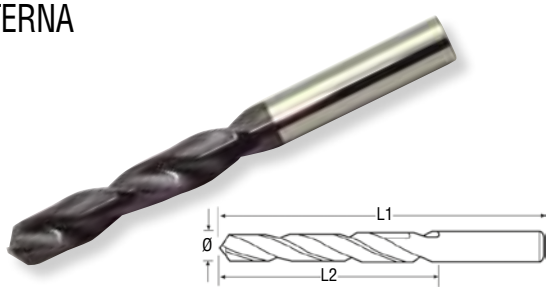
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	49	24	1	31XMD0200	**9,28**
2,50	57	30	1	31XMD0250	**12,36**
3,00	61	33	1	31XMD0300	**15,29**
3,50	70	39	1	31XMD0350	**17,36**
4,00	75	43	1	31XMD0400	**20,01**
4,50	80	47	1	31XMD0450	**24,96**
5,00	86	52	1	31XMD0500	**29,28**
5,50	93	57	1	31XMD0550	**36,07**
6,00	93	57	1	31XMD0600	**38,50**
6,50	101	63	1	31XMD0650	**48,39**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
7,00	109	69	1	31XMD0700	**62,75**
7,50	109	69	1	31XMD0750	**65,38**
8,00	117	75	1	31XMD0800	**83,26**
8,50	117	75	1	31XMD0850	**95,57**
9,00	125	81	1	31XMD0900	**111,73**
9,50	125	81	1	31XMD0950	**126,71**
10,00	133	87	1	31XMD1000	**134,70**
11,00	142	94	1	31XMD1100	**185,98**
12,00	151	101	1	31XMD1200	**239,35**
13,00	151	101	1	31XMD1300	**274,03**

*Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

M/DURO INTEGRAL DIN 6537 3XD SIN REFRIGERACIÓN INTERNA
DIN 6537 3XD HM WITHOUT COOLANT FEED
DIN 6537 3XD HM SANS TROUS D'HUILE



ACERO 100 - 1400 N/mm² | F | INOX | SP

MDI | DIN 6537K | 140° | 30° | TIALN

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
3,00	62	20	6	1	33XMD0300	**43,63**
3,10	62	20	6	1	33XMD0310	**43,63**
3,20	62	20	6	1	33XMD0320	**43,63**
3,30	62	20	6	1	33XMD0330	**43,63**
3,40	62	20	6	1	33XMD0340	**43,63**
3,50	62	20	6	1	33XMD0350	**43,63**
3,60	62	20	6	1	33XMD0360	**43,63**
3,70	62	20	6	1	33XMD0370	**43,63**
3,80	66	24	6	1	33XMD0380	**46,81**
3,90	66	24	6	1	33XMD0390	**46,81**
4,00	66	24	6	1	33XMD0400	**46,81**
4,10	66	24	6	1	33XMD0410	**47,20**
4,20	66	24	6	1	33XMD0420	**47,20**
4,30	66	24	6	1	33XMD0430	**47,20**
4,40	66	24	6	1	33XMD0440	**47,20**
4,50	66	24	6	1	33XMD0450	**47,20**
4,60	66	24	6	1	33XMD0460	**47,20**
4,70	66	24	6	1	33XMD0470	**47,20**
4,80	66	28	6	1	33XMD0480	**46,55**
4,90	66	28	6	1	33XMD0490	**46,55**
5,00	66	28	6	1	33XMD0500	**46,55**
5,10	66	28	6	1	33XMD0510	**47,06**
5,20	66	28	6	1	33XMD0520	**47,06**
5,30	66	28	6	1	33XMD0530	**47,06**
5,40	66	28	6	1	33XMD0540	**47,06**
5,50	66	28	6	1	33XMD0550	**47,06**
5,60	66	28	6	1	33XMD0560	**47,06**
5,70	66	28	6	1	33XMD0570	**47,06**
5,80	66	28	6	1	33XMD0580	**47,06**
5,90	66	28	6	1	33XMD0590	**47,06**
6,00	66	28	6	1	33XMD0600	**47,06**
6,10	79	34	8	1	33XMD0610	**64,59**
6,20	79	34	8	1	33XMD0620	**64,59**
6,30	79	34	8	1	33XMD0630	**64,59**
6,40	79	34	8	1	33XMD0640	**64,59**
6,50	79	34	8	1	33XMD0650	**64,59**
6,60	79	34	8	1	33XMD0660	**64,59**
6,70	79	34	8	1	33XMD0670	**64,59**
6,80	79	34	8	1	33XMD0680	**64,59**
6,90	79	34	8	1	33XMD0690	**64,59**
7,00	79	34	8	1	33XMD0700	**64,59**
7,10	79	41	8	1	33XMD0710	**65,85**
7,20	79	41	8	1	33XMD0720	**65,85**
7,30	79	41	8	1	33XMD0730	**65,85**
7,40	79	41	8	1	33XMD0740	**65,85**
7,50	79	41	8	1	33XMD0750	**65,85**

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
7,60	79	41	8	1	33XMD0760	**65,85**
7,70	79	41	8	1	33XMD0770	**65,85**
7,80	79	41	8	1	33XMD0780	**65,85**
7,90	79	41	8	1	33XMD0790	**65,85**
8,00	79	41	8	1	33XMD0800	**65,85**
8,10	89	47	10	1	33XMD0810	**92,86**
8,20	89	47	10	1	33XMD0820	**92,86**
8,30	89	47	10	1	33XMD0830	**92,86**
8,40	89	47	10	1	33XMD0840	**92,86**
8,50	89	47	10	1	33XMD0850	**92,86**
8,60	89	47	10	1	33XMD0860	**92,86**
8,70	89	47	10	1	33XMD0870	**92,86**
8,80	89	47	10	1	33XMD0880	**92,86**
8,90	89	47	10	1	33XMD0890	**92,86**
9,00	89	47	10	1	33XMD0900	**92,86**
9,10	89	47	10	1	33XMD0910	**92,86**
9,20	89	47	10	1	33XMD0920	**92,86**
9,30	89	47	10	1	33XMD0930	**92,86**
9,40	89	47	10	1	33XMD0940	**92,86**
9,50	89	47	10	1	33XMD0950	**92,86**
9,60	89	47	10	1	33XMD0960	**92,86**
9,70	89	47	10	1	33XMD0970	**92,86**
9,80	89	47	10	1	33XMD0980	**92,86**
9,90	89	47	10	1	33XMD0990	**92,86**
10,00	89	47	10	1	33XMD1000	**92,86**
10,50	102	55	12	1	33XMD1050	**125,69**
11,00	102	55	12	1	33XMD1100	**125,69**
11,50	102	55	12	1	33XMD1150	**125,69**
12,00	102	55	12	1	33XMD1200	**125,69**
12,50	107	60	14	1	33XMD1250	**170,99**
13,00	107	60	14	1	33XMD1300	**170,99**
13,50	107	60	14	1	33XMD1350	**170,99**
14,00	107	60	14	1	33XMD1400	**170,99**
14,50	115	65	16	1	33XMD1450	**210,61**
15,00	115	65	16	1	33XMD1500	**210,61**
15,50	115	65	16	1	33XMD1550	**210,61**
16,00	115	65	16	1	33XMD1600	**210,61**
16,50	123	73	18	1	33XMD1650	**308,10**
17,00	123	73	18	1	33XMD1700	**308,10**
17,50	123	73	18	1	33XMD1750	**308,10**
18,00	123	73	18	1	33XMD1800	**307,93**
18,50	131	79	20	1	33XMD1850	**382,46**
19,00	131	79	20	1	33XMD1900	**382,46**
19,50	131	79	20	1	33XMD1950	**382,46**
20,00	131	79	20	1	33XMD2000	**382,46**

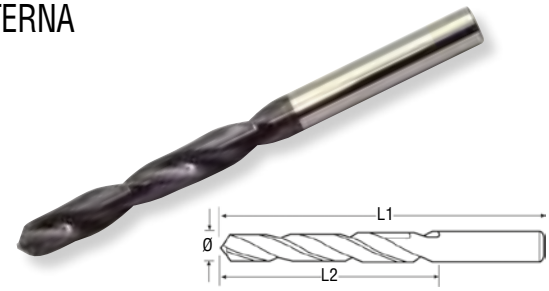
Para otras medidas consultar
Request for other sizes
Pour d'autres dimensions, nous consulter

Para brocas con canales de refrigeración, consúltennos
Request for drill bits with coolant feed
Pour forets avec trous d'huile, nous consulter



M/DURO INTEGRAL DIN 6537 5XD SIN REFRIGERACIÓN INTERNA

DIN 6537 5XD HM WITHOUT COOLANT FEED
DIN 6537 5XD HM SANS TROUS D'HUILE



ACERO 100 - 1400 N/mm² | F | INOX | SP

MDI | DIN 6537L | 140° | 30° | TIALN

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
3,00	66	28	6	1	35XMD0300	**56,98**
3,10	66	28	6	1	35XMD0310	**56,98**
3,20	66	28	6	1	35XMD0320	**56,98**
3,30	66	28	6	1	35XMD0330	**56,98**
3,40	66	28	6	1	35XMD0340	**56,98**
3,50	66	28	6	1	35XMD0350	**56,98**
3,60	66	28	6	1	35XMD0360	**56,98**
3,70	66	28	6	1	35XMD0370	**56,98**
3,80	74	36	6	1	35XMD0380	**63,70**
3,90	74	36	6	1	35XMD0390	**63,70**
4,00	74	36	6	1	35XMD0400	**63,70**
4,10	74	36	6	1	35XMD0410	**64,43**
4,20	74	36	6	1	35XMD0420	**64,43**
4,30	74	36	6	1	35XMD0430	**64,43**
4,40	74	36	6	1	35XMD0440	**64,43**
4,50	74	36	6	1	35XMD0450	**64,43**
4,60	74	36	6	1	35XMD0460	**64,43**
4,70	74	36	6	1	35XMD0470	**64,43**
4,80	82	44	6	1	35XMD0480	**61,48**
4,90	82	44	6	1	35XMD0490	**61,48**
5,00	82	44	6	1	35XMD0500	**61,48**
5,10	82	44	6	1	35XMD0510	**62,37**
5,20	82	44	6	1	35XMD0520	**62,37**
5,30	82	44	6	1	35XMD0530	**62,37**
5,40	82	44	6	1	35XMD0540	**62,37**
5,50	82	44	6	1	35XMD0550	**62,37**
5,60	82	44	6	1	35XMD0560	**62,37**
5,70	82	44	6	1	35XMD0570	**62,37**
5,80	82	44	6	1	35XMD0580	**62,37**
5,90	82	44	6	1	35XMD0590	**62,37**
6,00	82	44	6	1	35XMD0600	**62,37**
6,10	91	53	8	1	35XMD0610	**80,26**
6,20	91	53	8	1	35XMD0620	**80,26**
6,30	91	53	8	1	35XMD0630	**80,26**
6,40	91	53	8	1	35XMD0640	**80,26**
6,50	91	53	8	1	35XMD0650	**80,26**
6,60	91	53	8	1	35XMD0660	**80,26**
6,70	91	53	8	1	35XMD0670	**80,26**
6,80	91	53	8	1	35XMD0680	**80,26**
6,90	91	53	8	1	35XMD0690	**80,26**
7,00	91	53	8	1	35XMD0700	**80,26**
7,10	91	53	8	1	35XMD0710	**81,36**

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
7,20	91	53	8	1	35XMD0720	**81,36**
7,30	91	53	8	1	35XMD0730	**81,36**
7,40	91	53	8	1	35XMD0740	**81,36**
7,50	91	53	8	1	35XMD0750	**81,36**
7,60	91	53	8	1	35XMD0760	**81,36**
7,70	91	53	8	1	35XMD0770	**81,36**
7,80	91	53	8	1	35XMD0780	**81,36**
7,90	91	53	8	1	35XMD0790	**81,36**
8,00	91	53	8	1	35XMD0800	**81,36**
8,10	103	61	10	1	35XMD0810	**106,74**
8,20	103	61	10	1	35XMD0820	**106,74**
8,30	103	61	10	1	35XMD0830	**106,74**
8,40	103	61	10	1	35XMD0840	**106,74**
8,50	103	61	10	1	35XMD0850	**106,74**
8,60	103	61	10	1	35XMD0860	**106,74**
8,70	103	61	10	1	35XMD0870	**106,74**
8,80	103	61	10	1	35XMD0880	**106,74**
8,90	103	61	10	1	35XMD0890	**106,74**
9,00	103	61	10	1	35XMD0900	**106,74**
9,10	103	61	10	1	35XMD0910	**106,74**
9,20	103	61	10	1	35XMD0920	**106,74**
9,30	103	61	10	1	35XMD0930	**106,74**
9,40	103	61	10	1	35XMD0940	**106,74**
9,50	103	61	10	1	35XMD0950	**106,74**
9,60	103	61	10	1	35XMD0960	**106,74**
9,70	103	61	10	1	35XMD0970	**106,74**
9,80	103	61	10	1	35XMD0980	**106,74**
9,90	103	61	10	1	35XMD0990	**106,74**
10,00	103	61	10	1	35XMD1000	**106,74**
10,50	118	71	12	1	35XMD1050	**144,55**
11,00	118	71	12	1	35XMD1100	**144,55**
11,50	118	71	12	1	35XMD1150	**144,55**
12,00	118	71	12	1	35XMD1200	**144,55**
12,50	124	77	14	1	35XMD1250	**196,78**
13,00	124	77	14	1	35XMD1300	**196,78**
13,50	124	77	14	1	35XMD1350	**196,78**
14,00	124	77	14	1	35XMD1400	**196,78**
14,50	133	83	16	1	35XMD1450	**243,55**
15,00	133	83	16	1	35XMD1500	**243,55**
15,50	133	83	16	1	35XMD1550	**243,55**
16,00	133	83	16	1	35XMD1600	**243,55**

Para otras medidas consultar
Request for other sizes
Pour d'autres dimensions, nous consulter

Para brocas con canales de refrigeración, consúltennos
Request for drill bits with coolant feed
Pour forets avec trous d'huile, nous consulter



TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS

APPLICATION GUIDE AND CUTTING SPEED

TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ



MATERIAL / *MATERIAL* / *MATIERE*		Resistencia / *Ressistance* *Resistance* N/mm	HSS-G Pág. 102	HSS "white" Pág. 109	HSSCo Pág. 110
ACEROS *STEELS • ACIERS*	Decoletaje *Machining • Décolletage*	<500	20 - 25	20 - 25	8 - 12
	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850	15 - 20	15 - 20	4 - 6
	Acero para herramientas *Steel for tools • Acier pour outils*	<1.200			10 - 12
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1.400			4 - 5
ACEROS INOXIDABLES *STAINLESS STEEL ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850			8 - 12
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1.200			4 - 6
FUNDICIÓN *CAST IRON • FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700	20 - 25		30 - 35
	Fundición dura *Hard cast iron • Fonte dur*	<1.000	20 - 25		20 - 25
ALUMINIO *ALUMINIUM • ALUMINIUM*	Puro *Pure • Pure*	<350	40 - 50		50 - 55
	Si < 10%	<600	40 - 50		50 - 60
	Si > 10%	<600	30 - 40	30 - 40	
	Zamak *Zamak • Zamak*	<600	30 - 35		40 - 45
COBRE *COPPER • CUIVRE*	Bronce *Bronze • Bronze*	<350	40 - 60		
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700	40 - 60		22 - 25
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700	25 - 30		22 - 25
	Latón duro *Hard Brass • Laiton dur*	<700	40 - 60		
	Latón tenaz *Tough Brass • Laiton tenace*	<700	25 - 30		
TITANIO *TITANIUM • TITANE*	Puro *Pure • Pure*	<700			
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1.200			
SINTÉTICOS *PLASTICS • PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-			
	Duroplásticos *Hard-plastics • Duroplastique*	-			

20 - 25 Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupe

20 - 25 Buen rendimiento y velocidad de corte (M/Min)
Good performance and cutting speed (M/Min)
Bon rendement et vitesse de coup recommendée (M/Min)

INFORMACIÓN TÉCNICA
TECHNICAL INFORMATION • INFORMATION TÉCHNIQUE



HSS-G inox Pág. 114	HSSCo inox Pág. 115	HSS -G TiN Pág. 116	HSSCo TiAlN Pág. 118	HSS-G Alu Pág. 117	K20 Pág. 119	Avance / *Progression* *Avance*
		35 - 40	35 - 40		26 - 32	D
		35 - 40	35 - 40		26 - 32	C
			18 - 20		6 - 16	B
			8 - 10		4 - 6	A
8 - 12	8 - 12	15 - 20	15 - 20			A
4 - 6	4 - 6	18 - 20	18 - 20			A
		40 - 50	40 - 50			E
		20 - 25	20 - 25			D
				60 - 80		E
				50 - 60		D
				30 - 40		D
		60 - 65		30 - 40		D
				40 - 60		E
		35 - 40		40 - 60		E
				25 - 30		E
		90 - 100		40 - 60		E
		80 - 85		25 - 30		E
	5 - 10				5 - 10	A
	5 - 6				5 - 6	A
		20 - 25			10 - 25	F
		20 - 25			10 - 15	F

**El valor indicado en la tabla es el rango de velocidades de corte recomendadas *Valores recomendados en columna “AVANCES” ver pág. 100.
***The indicated value is the cutting speed range *Recomended progression values, see the guide on 100 page .*
***Les valeurs indiquées c´est le classement dés vitesse de coupe recommendées *Les valeurs d´avances recomendés, aller a la page 100.*

TABLA DE AVANCES
PROGRESSIONS GUIDE • TABLE D´AVENCES

	BLOQUE (mm x r) / *BLOCK (mm x r)* / *BLOQUE (mm x r)*					
Ø (mm)	**A**	**B**	**C**	**D**	**E**	**F**
2,00	0,020	0,025	0,032	0,040	0,050	0,063
2,50	0,025	0,032	0,040	0,050	0,063	0,080
3,00	0,030	0,040	0,050	0,060	0,080	0,100
4,00	0,040	0,050	0,063	0,080	0,100	0,125
5,00	0,040	0,050	0,063	0,080	0,100	0,125
6,50	0,050	0,063	0,080	0,100	0,125	0,160
8,00	0,063	0,080	0,100	0,125	0,160	0,200
10,00	0,080	0,100	0,125	0,160	0,200	0,250
13,00	0,090	0,110	0,130	0,180	0,220	0,270
16,00	0,100	0,125	0,160	0,200	0,250	0,315
20,00	0,125	0,160	0,200	0,250	0,315	0,400
25,00	0,160	0,200	0,250	0,315	0,400	0,500
30,00	0,160	0,200	0,250	0,315	0,400	0,500
40,00	0,200	0,250	0,315	0,400	0,500	0,630
50,00	0,250	0,315	0,400	0,500	0,630	0,800
63,00	0,315	0,400	0,500	0,630	0,800	1,000
80,00	0,400	0,500	0,630	0,800	1,000	1,125

Los valores de la tabla son orientativos y para las siguientes condiciones:
- Normas DIN 338 / 345
- Profundidad hasta 3 mm x Ø
- Refrigeración adecuada del material

Values on the guide are orientatives for the next conditions:
- *DIN 338 / 345 rules*
- *Maximum depth 3 mm x Ø*
- *Adequate cooling for the material*

Les valeurs de la table sont orientatives pour les suivant conditions:
- *Normes DIN 338 / 345*
- *Profondeur maximale 3 mm x Ø*
- *Réfrigération adéquate pour le matérial*

CÁLCULO DE LAS R.P.M *R.PM. CALCULATION • CALCUL DÉS R.P.M.*

$$R.P.M. = \frac{Vc \times 1.000}{\varpi \times Ø} \longrightarrow R.P.M. = \frac{20 \times 1.000}{3{,}1416 \times 10} = \frac{20.000}{31{,}416} = 641{,}84$$

PRINCIPALES MATERIALES DE FABRICACIÓN DE BROCAS
DRILL BIT MANUFACTURING MAIN MATERIALS
PRINCIPALES MATÉRIAUX DE FABRICATION DES FORETS

		COMPOSICIÓN % *COMPOSITION % / COMPOSITION %*								ID. INTERNACIONAL / *ID. IMNTERNATIONAL / ID. INTERNATIONALE*					
Denominación *Name / Nom*	**N° MATERIAL**	**C**	**Si**	**Mn**	**Cr**	**Mo**	**V**	**W**	**Co**	**USA (AISI)**	**Alemania (DIN)**	**Francia (AFNOR. NF)**	**Italia (UNI)**	**G. B. (BS)**	**España (UNE)**
HSS-G	**1.3343**	0,91	0,30	0,30	4,20	5,00	2,00	6,50	-	M2	S6-5-2	Z85WDCV	HS 6-5-2	BM2	F 5603
HSS-CO 5%	**1.3243**	0,91	0,30	0,30	4,20	5,00	2,00	6,50	4,75	M35	S6-5-2-5	Z85WDKCV	HS 5-2-5	-	F 5613
HSS-CO 8%	**1.3247**	1,08	0,40	0,30	4,00	9,50	1,20	1,50	8,00	M42	S2-10-1-8	ZII0DKCWV	HS 2-9-1-8	BM42	F 5617
MD	**92, 0WC-6,0Co-2,0TIC y TA(Nb)C**									-					

TABLA DE CONVERSIÓN DE DUREZAS Y RESISTENCIA A LA TRACCIÓN
HARDNESS CONVERSION GUIDE • TABLE DE CONVERSION DES DURÉTÉS

VICKERS	BRINELL	ROCKWELL		Resistencia a la tracción *Tensile Strength Resistence à la traction*	
HV 30	HB 30	HRB	HRC	Rm N/mm²	Rm KP/mm²
80	80	36,40	-	270	28
85	85	42,40	-	290	30
90	90	47,40	-	310	32
95	95	52,00	-	320	33
100	100	56,40	-	340	35
105	105	60,00	-	360	37
110	110	63,40	-	380	39
115	115	66,40	-	390	40
120	120	69,40	-	410	42
125	125	72,00	-	420	43
130	130	74,40	-	440	45
135	135	76,40	-	460	47
140	140	78,40	-	470	48
145	145	80,40	-	490	50
150	150	82,20	-	500	51
155	155	83,80	-	520	53
160	160	85,40	-	540	55
165	165	86,80	-	550	56
170	170	88,20	-	570	58
175	175	89,60	-	590	60
180	180	90,80	-	600	62
185	185	91,80	-	620	63
190	190	93,00	-	640	65
195	195	94,00	-	660	67
200	200	95,00	-	670	68
205	205	95,80	-	680	70
210	210	96,60	-	710	72
215	215	97,60	-	720	73
220	220	98,20	-	730	75
225	225	99,00	-	750	77
230	230	-	19,20	760	78
235	235	-	20,20	780	80
240	240	-	21,20	800	82
245	245	-	22,10	820	84
250	250	-	23,00	830	85
255	255	-	23,80	850	87
260	260	-	24,60	870	89
265	265	-	25,40	880	90
270	270	-	26,20	900	92
275	275	-	26,90	920	94
280	280	-	27,60	940	96
285	285	-	28,30	950	97
290	290	-	29,00	970	99
295	295	-	29,60	990	101
300	300	-	30,30	1.010	103
310	310		31,50	1.040	106
320	320		32,70	1.080	110
330	330		33,80	1.110	113

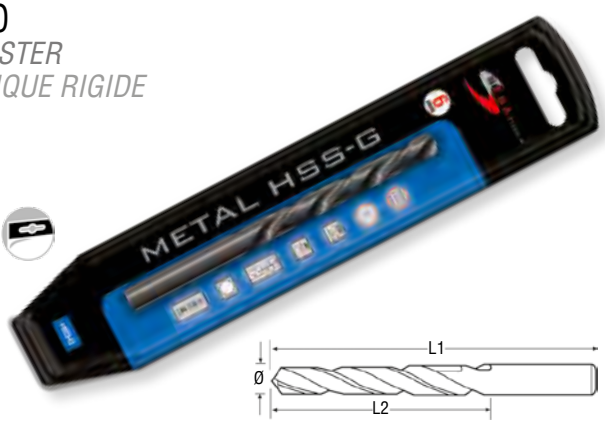
VICKERS	BRINELL	ROCKWELL		Resistencia a la tracción *Tensile Strength Resistence à la traction*	
HV 30	HB 30	HRB	HRC	Rm N/mm²	Rm KP/mm²
340	340	-	34,90	1.140	117
350	350	-	36,00	1.170	120
360	359	-	37,00	1.200	123
370	368	-	38,00	1.230	126
380	376	-	38,90	1.260	129
390	385	-	39,80	1.290	132
400	392	-	40,70	1.320	135
410	400	-	41,50	1.350	138
420	408	-	42,40	1.380	144
440	423	-	44,00	1.430	146
450	430	-	44,80	1.460	149
460	-	-	45,60	-	-
470	-	-	46,30	-	-
480	-	-	47,00	-	-
490	-	-	47,70	-	-
500	-	-	48,30	-	-
510	-	-	49,10	-	-
520	-	-	49,70	-	-
530	-	-	50,40	-	-
540	-	-	51,00	-	-
550	-	-	51,60	-	-
560	-	-	52,20	-	-
570	-	-	52,80	-	-
580	-	-	53,30	-	-
590	-	-	53,90	-	-
600	-	-	54,40	-	-
610	-	-	55,00	-	-
620	-	-	55,50	-	-
630	-	-	56,00	-	-
640	-	-	56,50	-	-
650	-	-	57,00	-	-
660	-	-	57,50	-	-
670	-	-	58,00	-	-
680	-	-	58,50	-	-
690	-	-	59,00	-	-
700	-	-	59,50	-	-
720	-	-	60,40	-	-
740	-	-	61,20	-	-
760	-	-	62,00	-	-
780	-	-	62,80	-	-
800	-	-	63,60	-	-
820	-	-	64,30	-	-
840	-	-	65,00	-	-
860	-	-	65,70	-	-
880	-	-	66,30	-	-
900	-	-	66,90	-	-
920	-	-	67,50	-	-
940	-	-	68,00	-	-

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN-338 N HSS-G ALTO RENDIMIENTO: BLISTER RÍGIDO
DIN 338 N HSS-G HIGH PERFORMANCE: RIGID PLASTIC BLISTER
DIN 338 N HSS-G GRAND RENDEMENT: BLISTER DE PLASTIQUE RIGIDE



HSS-G DIN 338 N

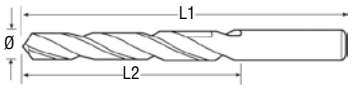



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	34	12	2	1460100BL	**1,02**
1,50	40	18	2	1460150BL	**1,01**
2,00	49	24	2	1460200BL	**1,21**
2,50	57	30	2	1460250BL	**1,09**
3,00	61	33	2	1460300BL	**1,18**
3,50	70	39	2	1460350BL	**1,20**
4,00	75	43	2	1460400BL	**1,22**
4,50	80	47	2	1460450BL	**1,54**
5,00	86	52	2	1460500BL	**1,65**
5,50	93	57	2	1460550BL	**2,04**
6,00	93	57	2	1460600BL	**2,14**
6,50	101	63	1	1460650BL	**2,92**
7,00	109	69	1	1460700BL	**3,31**
7,50	109	69	1	1460750BL	**3,63**
8,00	117	75	1	1460800BL	**4,11**
8,50	117	75	1	1460850BL	**4,62**
9,00	125	81	1	1460900BL	**5,13**
9,50	125	81	1	1460950BL	**6,01**
10,00	133	87	1	1461000BL	**6,32**
10,50	133	87	1	1461050BL	**7,14**
11,00	142	94	1	1461100BL	**7,83**
11,50	142	94	1	1461150BL	**8,67**
12,00	151	101	1	1461200BL	**9,39**
12,50	151	101	1	1461250BL	**11,25**
13,00	151	101	1	1461300BL	**10,84**

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT





ACERO 400-800 N/mm² | F | HSS-G | DIN 338 N | 118° | 30°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
0,20	19	2,5	10	1450020	**2,33**
0,25	19	3	10	1450025	**2,33**
0,30	19	3	10	1450030	**2,33**
0,35	19	3	10	1450035	**2,34**
0,40	20	5	10	1450040	**2,33**
0,45	22	6	10	1450045	**2,34**
0,50	22	6	10	1450050	**1,94**
0,55	24	7	10	1450055	**2,34**
0,60	24	7	10	1450060	**2,33**
0,65	26	8	10	1450065	**2,34**
0,70	28	9	10	1450070	**2,33**
0,75	28	9	10	1450075	**2,33**
0,80	30	10	10	1450080	**2,33**
0,85	30	10	10	1450085	**2,34**
0,90	32	11	10	1450090	**2,33**
0,95	32	11	10	1450095	**2,34**
1,00	34	12	10	1450100	**0,82**
1,05	34	12	10	1450105	**0,93**
1,10	36	14	10	1450110	**0,93**
1,15	36	14	10	1450115	**0,93**
1,20	38	16	10	1450120	**0,93**
1,25	38	16	10	1450125	**0,82**
1,30	38	16	10	1450130	**0,93**
1,35	40	18	10	1450135	**0,93**
1,40	40	18	10	1450140	**0,93**
1,45	40	18	10	1450145	**0,93**
1,50	40	18	10	1450150	**0,82**
1,55	43	20	10	1450155	**0,93**
1,60	43	20	10	1450160	**0,93**
1,65	43	20	10	1450165	**0,93**
1,70	43	20	10	1450170	**0,93**
1,75	46	22	10	1450175	**0,82**
1,80	46	22	10	1450180	**0,93**
1,85	46	22	10	1450185	**0,93**
1,90	46	22	10	1450190	**0,93**
1,95	49	24	10	1450195	**0,93**
2,00	49	24	10	1450200	**0,75**
2,05	49	24	10	1450205	**0,88**
2,10	49	24	10	1450210	**0,88**
2,15	53	27	10	1450215	**0,88**
2,20	53	27	10	1450220	**0,88**
2,25	53	27	10	1450225	**0,77**
2,30	53	27	10	1450230	**0,88**



Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
0,20	-	1460020	**-**
0,25	-	1460025	**-**
0,30	-	1460030	**-**
0,35	-	1460035	**-**
0,40	-	1460040	**-**
0,45	-	1460045	**-**
0,50	-	1460050	**-**
0,55	-	1460055	**-**
0,60	-	1460060	**-**
0,65	-	1460065	**-**
0,70	-	1460070	**-**
0,75	-	1460075	**-**
0,80	-	1460080	**-**
0,85	-	1460085	**-**
0,90	-	1460090	**-**
0,95	-	1460095	**-**
1,00	2	1460100	**0,98**
1,05	2	1460105	**1,10**
1,10	2	1460110	**1,10**
1,15	2	1460115	**1,10**
1,20	2	1460120	**1,10**
1,25	2	1460125	**0,98**
1,30	2	1460130	**1,10**
1,35	2	1460135	**1,10**
1,40	2	1460140	**1,10**
1,45	2	1460145	**1,10**
1,50	2	1460150	**0,97**
1,55	2	1460155	**1,10**
1,60	2	1460160	**1,10**
1,65	2	1460165	**1,10**
1,70	2	1460170	**1,10**
1,75	2	1460175	**1,02**
1,80	2	1460180	**1,10**
1,85	2	1460185	**1,10**
1,90	2	1460190	**1,10**
1,95	2	1460195	**1,10**
2,00	2	1460200	**1,10**
2,05	2	1460205	**1,04**
2,10	2	1460210	**1,04**
2,15	2	1460215	**1,04**
2,20	2	1460220	**1,04**
2,25	2	1460225	**0,99**
2,30	2	1460230	**1,04**

BROCAS PARA METAL MANGO CILÍNDRICO

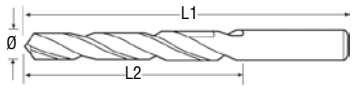
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT





HSS-G | DIN 338 N | 118° | 30°



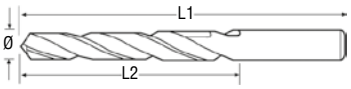
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,35	53	27	10	1450235	**0,88**
2,40	57	30	10	1450240	**0,88**
2,45	57	30	10	1450245	**0,88**
2,50	57	30	10	1450250	**0,80**
2,55	57	30	10	1450255	**0,96**
2,60	57	30	10	1450260	**0,96**
2,65	57	30	10	1450265	**0,95**
2,70	61	33	10	1450270	**0,96**
2,75	61	33	10	1450275	**0,85**
2,80	61	33	10	1450280	**0,96**
2,85	61	33	10	1450285	**0,96**
2,90	61	33	10	1450290	**0,96**
2,95	61	33	10	1450295	**0,96**
3,00	61	33	10	1450300	**0,71**
3,10	65	36	10	1450310	**0,99**
3,20	65	36	10	1450320	**0,99**
3,25	65	36	10	1450325	**0,90**
3,30	65	36	10	1450330	**0,99**
3,40	70	39	10	1450340	**1,08**
3,50	70	39	10	1450350	**0,92**
3,60	70	39	10	1450360	**1,14**
3,70	70	39	10	1450370	**1,14**
3,75	70	39	10	1450375	**1,01**
3,80	75	43	10	1450380	**1,14**
3,90	75	43	10	1450390	**1,14**
4,00	75	43	10	1450400	**0,95**
4,10	75	43	10	1450410	**1,28**
4,20	75	43	10	1450420	**1,28**
4,25	75	43	10	1450425	**1,18**
4,30	80	47	10	1450430	**1,28**
4,40	80	47	10	1450440	**1,28**
4,50	80	47	10	1450450	**1,18**
4,60	80	47	10	1450460	**1,50**
4,70	80	47	10	1450470	**1,50**
4,75	80	47	10	1450475	**1,49**
4,80	86	52	10	1450480	**1,50**
4,90	86	52	10	1450490	**1,50**
5,00	86	52	10	1450500	**1,25**
5,10	86	52	10	1450510	**1,79**
5,20	86	52	10	1450520	**1,79**
5,25	86	52	10	1450525	**1,61**
5,30	86	52	10	1450530	**1,79**
5,40	93	57	10	1450540	**1,79**



Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,35	2	1460235	**1,04**
2,40	2	1460240	**1,04**
2,45	2	1460245	**0,99**
2,50	2	1460250	**0,99**
2,55	2	1460255	**1,13**
2,60	2	1460260	**1,14**
2,65	2	1460265	**1,13**
2,70	2	1460270	**1,14**
2,75	2	1460275	**1,00**
2,80	2	1460280	**1,14**
2,85	2	1460285	**1,14**
2,90	2	1460290	**1,14**
2,95	2	1460295	**1,13**
3,00	1	1460300	**1,07**
3,10	1	1460310	**1,17**
3,20	1	1460320	**1,17**
3,25	1	1460325	**1,07**
3,30	1	1460330	**1,17**
3,40	1	1460340	**1,28**
3,50	1	1460350	**1,09**
3,60	1	1460360	**1,35**
3,70	1	1460370	**1,35**
3,75	1	1460375	**1,19**
3,80	1	1460380	**1,35**
3,90	1	1460390	**1,35**
4,00	1	1460400	**1,11**
4,10	1	1460410	**1,50**
4,20	1	1460420	**1,50**
4,25	1	1460425	**1,39**
4,30	1	1460430	**1,50**
4,40	1	1460440	**1,50**
4,50	1	1460450	**1,39**
4,60	1	1460460	**1,78**
4,70	1	1460470	**1,78**
4,75	1	1460475	**1,76**
4,80	1	1460480	**1,78**
4,90	1	1460490	**1,78**
5,00	1	1460500	**1,37**
5,10	1	1460510	**1,97**
5,20	1	1460520	**1,97**
5,25	1	1460525	**1,78**
5,30	1	1460530	**1,97**
5,40	1	1460540	**1,97**

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT





HSS-G | DIN 338 N | 118° | 30°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
5,50	93	57	10	1450550	**1,68**
5,60	93	57	10	1450560	**2,05**
5,70	93	57	10	1450570	**2,05**
5,75	93	57	10	1450575	**1,99**
5,80	93	57	10	1450580	**2,05**
5,90	93	57	10	1450590	**2,05**
6,00	93	57	10	1450600	**1,74**
6,10	101	63	10	1450610	**2,35**
6,20	101	63	10	1450620	**2,35**
6,25	101	63	10	1450625	**2,06**
6,30	101	63	10	1450630	**2,35**
6,40	101	63	10	1450640	**2,35**
6,50	101	63	10	1450650	**2,13**
6,60	101	63	10	1450660	**2,83**
6,70	101	63	10	1450670	**2,83**
6,75	109	69	10	1450675	**2,58**
6,80	109	69	10	1450680	**2,83**
6,90	109	69	10	1450690	**2,83**
7,00	109	69	10	1450700	**2,50**
7,10	109	69	10	1450710	**3,51**
7,20	109	69	10	1450720	**3,51**
7,25	109	69	10	1450725	**3,08**
7,30	109	69	10	1450730	**3,37**
7,40	109	69	10	1450740	**3,37**
7,50	109	69	10	1450750	**2,87**
7,60	117	75	10	1450760	**3,74**
7,70	117	75	10	1450770	**3,74**
7,75	117	75	10	1450775	**3,62**
7,80	117	75	10	1450780	**3,84**
7,90	117	75	10	1450790	**3,84**
8,00	117	75	10	1450800	**3,07**
8,10	117	75	10	1450810	**4,37**
8,20	117	75	10	1450820	**4,37**
8,25	117	75	10	1450825	**3,92**
8,30	117	75	10	1450830	**4,30**
8,40	117	75	10	1450840	**4,30**
8,50	117	75	10	1450850	**3,82**
8,60	125	81	5	1450860	**4,87**
8,70	125	81	5	1450870	**4,87**
8,75	125	81	5	1450875	**4,50**
8,80	125	81	5	1450880	**4,87**
8,90	125	81	5	1450890	**4,87**
9,00	125	81	5	1450900	**4,23**



Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
5,50	1	1460550	**1,85**
5,60	1	1460560	**2,05**
5,70	1	1460570	**2,25**
5,75	1	1460575	**2,19**
5,80	1	1460580	**2,25**
5,90	1	1460590	**2,25**
6,00	1	1460600	**1,91**
6,10	1	1460610	**2,58**
6,20	1	1460620	**2,58**
6,25	1	1460625	**2,27**
6,30	1	1460630	**2,58**
6,40	1	1460640	**2,58**
6,50	1	1460650	**2,34**
6,60	1	1460660	**3,12**
6,70	1	1460670	**3,12**
6,75	1	1460675	**2,84**
6,80	1	1460680	**3,12**
6,90	1	1460690	**3,12**
7,00	1	1460700	**2,76**
7,10	1	1460710	**3,86**
7,20	1	1460720	**3,86**
7,25	1	1460725	**3,39**
7,30	1	1460730	**3,72**
7,40	1	1460740	**3,72**
7,50	1	1460750	**3,16**
7,60	1	1460760	**4,12**
7,70	1	1460770	**4,12**
7,75	1	1460775	**3,98**
7,80	1	1460780	**4,22**
7,90	1	1460790	**4,22**
8,00	1	1460800	**3,38**
8,10	1	1460810	**4,82**
8,20	1	1460820	**4,82**
8,25	1	1460825	**4,31**
8,30	1	1460830	**4,72**
8,40	1	1460840	**4,72**
8,50	1	1460850	**4,20**
8,60	1	1460860	**5,36**
8,70	1	1460870	**5,36**
8,75	1	1460875	**4,94**
8,80	1	1460880	**5,36**
8,90	1	1460890	**5,36**
9,00	1	1460900	**4,65**

BROCAS PARA METAL MANGO CILÍNDRICO

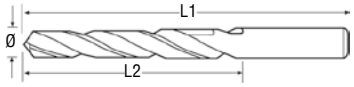
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT





HSS-G | DIN 338 N | 118° | 30°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
9,10	125	81	5	1450910	**5,91**
9,20	125	81	5	1450920	**5,91**
9,25	125	81	5	1450925	**5,40**
9,30	125	81	5	1450930	**5,91**
9,40	125	81	5	1450940	**5,91**
9,50	125	81	5	1450950	**4,95**
9,60	133	87	5	1450960	**6,29**
9,70	133	87	5	1450970	**6,29**
9,75	133	87	5	1450975	**5,84**
9,80	133	87	5	1450980	**6,29**
9,90	133	87	5	1450990	**6,29**
10,00	133	87	5	1451000	**5,00**
10,10	133	87	5	1451010	**8,89**
10,20	133	87	5	1451020	**8,89**
10,25	133	87	5	1451025	**6,32**
10,30	133	87	5	1451030	**9,00**
10,40	133	87	5	1451040	**9,00**
10,50	133	87	5	1451050	**6,24**
10,60	133	87	5	1451060	**9,55**
10,70	142	94	5	1451070	**9,55**
10,75	142	94	5	1451075	**7,02**
10,80	142	94	5	1451080	**10,66**
10,90	142	94	5	1451090	**10,66**
11,00	142	94	5	1451100	**6,83**
11,10	142	94	5	1451110	**10,66**
11,20	142	94	5	1451120	**10,66**
11,25	142	94	5	1451125	**7,78**
11,30	142	94	5	1451130	**10,75**
11,40	142	94	5	1451140	**10,75**
11,50	142	94	5	1451150	**7,58**
11,60	142	94	5	1451160	**10,75**
11,70	142	94	5	1451170	**10,75**
11,75	142	94	5	1451175	**8,11**
11,80	142	94	5	1451180	**10,92**
11,90	151	101	5	1451190	**10,92**
12,00	151	101	5	1451200	**7,96**
12,10	151	101	5	1451210	**11,74**
12,20	151	101	5	1451220	**11,74**
12,25	151	101	5	1451225	**9,63**
12,30	151	101	5	1451230	**11,74**
12,40	151	101	5	1451240	**11,74**
12,50	151	101	5	1451250	**9,83**
12,60	151	101	5	1451260	**12,52**

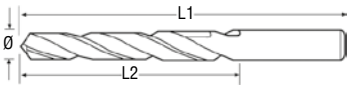


Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
9,10	1	1460910	**6,50**
9,20	1	1460920	**6,50**
9,25	1	1460925	**5,95**
9,30	1	1460930	**6,50**
9,40	1	1460940	**6,50**
9,50	1	1460950	**5,45**
9,60	1	1460960	**6,92**
9,70	1	1460970	**6,92**
9,75	1	1460975	**6,43**
9,80	1	1460980	**6,92**
9,90	1	1460990	**6,92**
10,00	1	1461000	**5,20**
10,10	1	1461010	**9,25**
10,20	1	1461020	**9,25**
10,25	1	1461025	**6,58**
10,30	1	1461030	**9,36**
10,40	1	1461040	**9,36**
10,50	1	1461050	**6,49**
10,60	1	1461060	**9,93**
10,70	1	1461070	**9,93**
10,75	1	1461075	**7,30**
10,80	1	1461080	**11,09**
10,90	1	1461090	**11,09**
11,00	1	1461100	**7,11**
11,10	1	1461110	**11,09**
11,20	1	1461120	**11,09**
11,25	1	1461125	**8,09**
11,30	1	1461130	**11,18**
11,40	1	1461140	**11,18**
11,50	1	1461150	**7,88**
11,60	1	1461160	**11,18**
11,70	1	1461170	**11,19**
11,75	1	1461175	**8,44**
11,80	1	1461180	**11,35**
11,90	1	1461190	**11,35**
12,00	1	1461200	**8,28**
12,10	1	1461210	**12,21**
12,20	1	1461220	**12,21**
12,25	1	1461225	**10,02**
12,30	1	1461230	**12,21**
12,40	1	1461240	**12,21**
12,50	1	1461250	**10,22**
12,60	1	1461260	**13,03**

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT









Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12,70	151	101	5	1451270	**12,52**
12,75	151	101	5	1451275	**10,15**
12,80	151	101	5	1451280	**13,01**
12,90	151	101	5	1451290	**13,01**
13,00	151	101	5	1451300	**9,47**
13,25	160	108	1	111325	**14,62**
13,50	160	108	1	111350	**14,28**
13,75	160	108	1	111375	**14,71**
14,00	160	108	1	111400	**14,24**
14,25	169	114	1	111425	**17,64**
14,50	169	114	1	111450	**16,59**
14,75	169	114	1	111475	**17,64**
15,00	169	114	1	111500	**18,20**
15,25	178	120	1	111525	**21,84**
15,50	178	120	1	111550	**20,68**
15,75	178	120	1	111575	**23,30**
16,00	178	120	1	111600	**19,78**
16,25	184	125	1	111625	**26,66**
16,50	184	125	1	111650	**24,72**
16,75	184	125	1	111675	**27,97**
17,00	184	125	1	111700	**24,20**
17,25	191	130	1	111725	**30,94**
17,50	191	130	1	111750	**28,18**
17,75	191	130	1	111775	**30,94**
18,00	191	130	1	111800	**28,39**
18,25	198	135	1	111825	**34,58**
18,50	198	135	1	111850	**31,33**
18,75	198	135	1	111875	**36,93**
19,00	198	135	1	111900	**31,61**
19,25	205	140	1	111925	**41,31**
19,50	205	140	1	111950	**37,83**
19,75	205	140	1	111975	**41,31**
20,00	205	140	1	112000	**39,13**



Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12,70	1	1461270	**13,03**
12,75	1	1461275	**10,55**
12,80	1	1461280	**13,01**
12,90	1	1461290	**13,53**
13,00	1	1461300	**9,85**

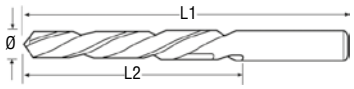
BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G, IZQUIERDAS

DIN 338 N HSS-G, LEFT HAND • DIN 338 N HSS-G, A GAUCHE











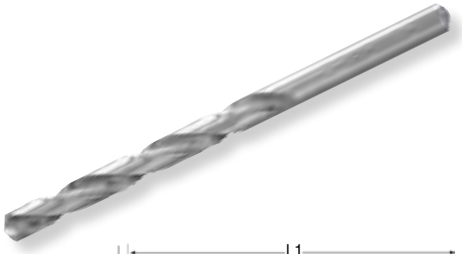
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	49	24	10	1450200I	**3,49**
2,50	57	30	10	1450250I	**3,61**
3,00	61	33	10	1450300I	**3,43**
3,25	65	36	10	1450325I	**4,24**
3,50	70	39	10	1450350I	**4,52**
4,00	75	43	10	1450400I	**4,33**
4,50	80	47	10	1450450I	**5,54**
5,00	86	52	10	1450500I	**5,65**
5,50	93	57	10	1450550I	**7,17**
6,00	93	57	10	1450600I	**7,95**
6,50	101	63	10	1450650I	**9,03**
7,00	109	69	10	1450700I	**10,95**
7,50	109	69	10	1450750I	**13,00**
8,00	117	75	10	1450800I	**13,90**
8,50	117	75	10	1450850I	**16,07**
9,00	125	81	10	1450900I	**18,48**
9,50	125	81	10	1450950I	**21,00**
10,00	133	87	10	1451000I	**22,39**

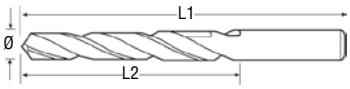


Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	2	1460200I	**4,12**
2,50	2	1460250I	**4,26**
3,00	1	1460300I	**4,05**
3,25	1	1460325I	**5,01**
3,50	1	1460350I	**5,33**
4,00	1	1460400I	**5,11**
4,50	1	1460450I	**6,53**
5,00	1	1460500I	**6,22**
5,50	1	1460550I	**7,88**
6,00	1	1460600I	**8,74**
6,50	1	1460650I	**9,93**
7,00	1	1460700I	**12,05**
7,50	1	1460750I	**14,29**
8,00	1	1460800I	**15,29**
8,50	1	1460850I	**17,67**
9,00	1	1460900I	**20,32**
9,50	1	1460950I	**22,27**
10,00	1	1461000I	**23,73**

DIN 338 N HSS WHITE

DIN 338 N HSS WHITE
DIN 338 N HSS WHITE





HSS | DIN 338 N | 118° | 30°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1.00	34	12	10	1550100	**0,32**
1.25	38	16	10	1550125	**0,33**
1.50	40	18	10	1550150	**0,32**
1.75	46	22	10	1550175	**0,33**
2.00	49	24	10	1550200	**0,32**
2.25	53	27	10	1550225	**0,33**
2.50	57	30	10	1550250	**0,32**
2.75	61	33	10	1550275	**0,40**
3.00	61	33	10	1550300	**0,40**
3.25	65	36	10	1550325	**0,44**
3.50	70	39	10	1550350	**0,44**
3.75	70	39	10	1550375	**0,50**
4.00	75	43	10	1550400	**0,50**
4.25	75	43	10	1550425	**0,63**
4.50	80	47	10	1550450	**0,63**
4.75	80	47	10	1550475	**0,76**
5.00	86	52	10	1550500	**0,76**
5.25	86	52	10	1550525	**0,97**
5.50	93	57	10	1550550	**0,97**
5.75	93	57	10	1550575	**1,11**
6.00	93	57	10	1550600	**1,11**
6.25	101	63	10	1550625	**1,28**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6.50	101	63	10	1550650	**1,28**
6.75	109	69	10	1550675	**1,49**
7.00	109	69	10	1550700	**1,49**
7.25	109	69	10	1550725	**1,68**
7.50	109	69	10	1550750	**1,68**
7.75	117	75	10	1550775	**2,16**
8.00	117	75	10	1550800	**2,16**
8.25	117	75	10	1550825	**2,33**
8.50	117	75	10	1550850	**2,33**
8.75	125	81	10	1550875	**2,77**
9.00	125	81	10	1550900	**2,77**
9.25	125	81	10	1550925	**3,02**
9.50	125	81	10	1550950	**3,02**
9.75	133	87	5	1550975	**3,55**
10.00	133	87	5	1551000	**3,55**
10.50	133	87	5	1551050	**3,88**
11.00	142	94	5	1551100	**4,51**
11.50	142	94	5	1551150	**4,93**
12.00	151	101	5	1551200	**5,65**
12.50	151	101	5	1551250	**6,17**
13.00	151	101	5	1551300	**6,63**

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN-338 N HSS-CO: BLISTER RÍGIDO
DIN 338 N HSS-CO: RIGID PLASTIC BLISTER
DIN 338 N HSS-CO: BLISTER DE PLASTIQUE RIGIDE

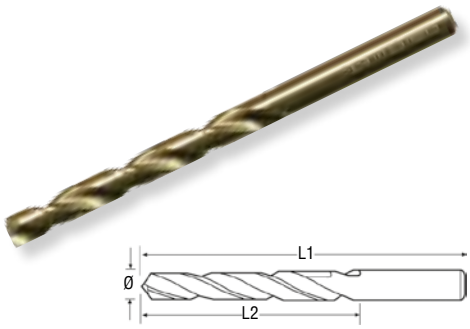




Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	34	12	2	1430100BL	**1,87**
1,50	40	18	2	1430150BL	**1,76**
2,00	49	24	2	1430200BL	**1,75**
2,50	57	30	2	1430250BL	**1,82**
3,00	61	33	2	1430300BL	**1,81**
3,50	70	39	2	1430350BL	**2,26**
4,00	75	43	2	1430400BL	**2,35**
4,50	80	47	2	1430450BL	**2,78**
5,00	86	52	2	1430500BL	**2,80**
5,50	93	57	2	1430550BL	**3,51**
6,00	93	57	2	1430600BL	**3,51**
6,50	101	63	1	1430650BL	**4,38**
7,00	109	69	1	1430700BL	**4,76**
7,50	109	69	1	1430750BL	**5,24**
8,00	117	75	1	1430800BL	**6,34**
8,50	117	75	1	1430850BL	**6,72**
9,00	125	81	1	1430900BL	**8,01**
9,50	125	81	1	1430950BL	**8,97**
10,00	133	87	1	1431000BL	**9,35**
10,50	133	87	1	1431050BL	**12,11**
11,00	142	94	1	1431100BL	**13,54**
11,50	142	94	1	1431150BL	**16,95**
12,00	151	101	1	1431200BL	**17,71**
12,50	151	101	1	1431250BL	**22,72**
13,00	151	101	1	1431300BL	**22,79**

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-CO
DIN 338 N HSS-CO • DIN 338 N HSS-CO



ACERO 900 - 1100 N/mm² | HSS-CO 5% | DIN 338 N | 135° | 30°



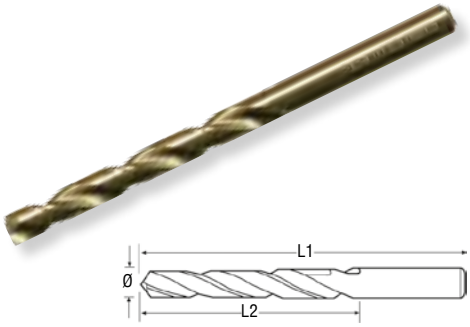
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
0,30	19	3	10	140030	3,49
0,40	20	5	10	140040	3,49
0,50	22	6	10	140050	2,79
0,60	24	7	10	140060	2,79
0,70	28	9	10	140070	2,79
0,75	28	9	10	140075	2,52
0,80	30	10	10	140080	2,79
0,90	32	11	10	140090	2,79
1,00	34	12	10	140100	1,40
1,10	36	14	10	140110	1,60
1,20	38	16	10	140120	1,60
1,25	38	16	10	140125	1,50
1,30	38	16	10	140130	1,60
1,40	40	18	10	140140	1,60
1,50	40	18	10	140150	1,32
1,60	43	20	10	140160	2,25
1,70	43	20	10	140170	2,25
1,75	46	22	10	140175	1,63
1,80	46	22	10	140180	2,25
1,90	46	22	10	140190	2,25
2,00	49	24	10	140200	1,31
2,10	49	24	10	140210	1,86
2,20	53	27	10	140220	1,86
2,25	53	27	10	140225	1,70
2,30	53	27	10	140230	1,86
2,40	57	30	10	140240	1,86
2,50	57	30	10	140250	1,36
2,60	57	30	10	140260	1,84
2,70	61	33	10	140270	1,84
2,75	61	33	10	140275	1,71
2,80	61	33	10	140280	1,84
2,90	61	33	10	140290	1,84
3,00	61	33	10	140300	1,36
3,10	65	36	10	140310	1,68
3,20	65	36	10	140320	1,68
3,25	65	36	10	140325	1,64
3,30	65	36	10	140330	1,85
3,40	70	39	10	140340	1,85
3,50	70	39	10	140350	1,70
3,60	70	39	10	140360	2,18
3,70	70	39	10	140370	2,18
3,75	70	39	10	140375	1,96
3,80	75	43	10	140380	2,18
3,90	75	43	10	140390	2,18
4,00	75	43	10	140400	1,75
4,10	75	43	10	140410	2,21
4,20	75	43	10	140420	2,21
4,25	75	43	10	140425	2,01



Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
0,30	-	-	-
0,40	-	-	-
0,50	-	-	-
0,60	-	-	-
0,70	-	-	-
0,75	-	-	-
0,80	-	-	-
0,90	-	-	-
1,00	2	1430100	1,70
1,10	2	1430110	1,89
1,20	2	1430120	1,90
1,25	2	1430125	1,81
1,30	2	1430130	1,89
1,40	2	1430140	1,90
1,50	2	1430150	1,60
1,60	2	1430160	2,65
1,70	2	1430170	2,65
1,75	2	1430175	1,98
1,80	2	1430180	2,65
1,90	2	1430190	2,65
2,00	2	1430200	1,59
2,10	2	1430210	2,20
2,20	2	1430220	2,20
2,25	2	1430225	2,06
2,30	2	1430230	2,20
2,40	2	1430240	2,20
2,50	2	1430250	1,66
2,60	2	1430260	2,17
2,70	2	1430270	2,17
2,75	2	1430275	2,07
2,80	2	1430280	2,17
2,90	2	1430290	2,17
3,00	1	1430300	1,65
3,10	1	1430310	1,98
3,20	1	1430320	1,98
3,25	1	1430325	2,00
3,30	1	1430330	2,18
3,40	1	1430340	2,18
3,50	1	1430350	2,06
3,60	1	1430360	2,59
3,70	1	1430370	2,58
3,75	1	1430375	2,38
3,80	1	1430380	2,58
3,90	1	1430390	2,58
4,00	1	1430400	2,14
4,10	1	1430410	2,62
4,20	1	1430420	2,62
4,25	1	1430425	2,45

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-CO
DIN 338 N HSS-CO • DIN 338 N HSS-CO



ACERO 900 -1100 N/mm²

HSS-CO 5%

DIN 338 N

135°

30°



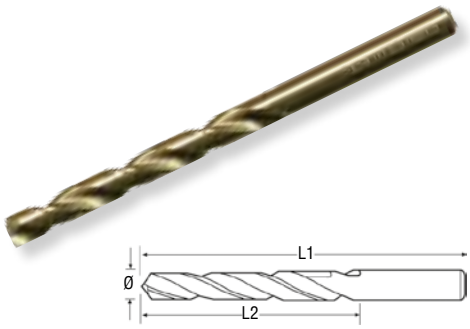


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4,30	80	47	10	140430	2,38
4,40	80	47	10	140440	2,38
4,50	80	47	10	140450	2,08
4,60	80	47	10	140460	2,38
4,70	80	47	10	140470	2,38
4,75	80	47	10	140475	2,22
4,80	86	52	10	140480	2,55
4,90	86	52	10	140490	2,55
5,00	86	52	10	140500	2,10
5,10	86	52	10	140510	2,82
5,20	86	52	10	140520	2,82
5,25	86	52	10	140525	2,53
5,30	86	52	10	140530	3,02
5,40	93	57	10	140540	3,02
5,50	93	57	10	140550	2,80
5,60	93	57	10	140560	3,25
5,70	93	57	10	140570	3,25
5,75	93	57	10	140575	3,07
5,80	93	57	10	140580	3,43
5,90	93	57	10	140590	3,43
6,00	93	57	10	140600	2,82
6,10	101	63	10	140610	3,83
6,20	101	63	10	140620	3,83
6,25	101	63	10	140625	3,49
6,30	101	63	10	140630	4,02
6,40	101	63	10	140640	4,02
6,50	101	63	10	140650	3,51
6,60	101	63	10	140660	4,51
6,70	101	63	10	140670	4,51
6,75	109	69	10	140675	4,10
6,80	109	69	10	140680	4,69
6,90	109	69	10	140690	4,69
7,00	109	69	10	140700	3,83
7,10	109	69	10	140710	5,33
7,20	109	69	10	140720	5,33
7,25	109	69	10	140725	5,05
7,30	109	69	10	140730	5,67
7,40	109	69	10	140740	5,67
7,50	109	69	10	140750	4,21
7,60	117	75	10	140760	6,58
7,70	117	75	10	140770	6,58
7,75	117	75	10	140775	6,13
7,80	117	75	10	140780	7,08
7,90	117	75	10	140790	7,08
8,00	117	75	10	140800	5,09
8,10	117	75	10	140810	7,29
8,20	117	75	10	140820	7,29
8,25	117	75	10	140825	6,11

Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4,30	1	1430430	2,82
4,40	1	1430440	2,82
4,50	1	1430450	2,53
4,60	1	1430460	2,82
4,70	1	1430470	2,82
4,75	1	1430475	2,69
4,80	1	1430480	3,01
4,90	1	1430490	3,01
5,00	1	1430500	2,55
5,10	1	1430510	3,10
5,20	1	1430520	3,10
5,25	1	1430525	2,86
5,30	1	1430530	3,32
5,40	1	1430540	3,32
5,50	1	1430550	3,17
5,60	1	1430560	3,57
5,70	1	1430570	3,57
5,75	1	1430575	3,47
5,80	1	1430580	3,77
5,90	1	1430590	3,77
6,00	1	1430600	3,19
6,10	1	1430610	4,21
6,20	1	1430620	4,21
6,25	1	1430625	3,96
6,30	1	1430630	4,42
6,40	1	1430640	4,42
6,50	1	1430650	3,98
6,60	1	1430660	4,96
6,70	1	1430670	4,96
6,75	1	1430675	4,64
6,80	1	1430680	5,15
6,90	1	1430690	5,15
7,00	1	1430700	4,33
7,10	1	1430710	5,86
7,20	1	1430720	5,86
7,25	1	1430725	5,72
7,30	1	1430730	6,23
7,40	1	1430740	6,23
7,50	1	1430750	4,76
7,60	1	1430760	7,24
7,70	1	1430770	7,24
7,75	1	1430775	6,93
7,80	1	1430780	7,79
7,90	1	1430790	7,79
8,00	1	1430800	5,77
8,10	1	1430810	8,02
8,20	1	1430820	8,02
8,25	1	1430825	6,92

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-CO
DIN 338 N HSS-CO • DIN 338 N HSS-CO



ACERO 900 - 1100 N/mm²

HSS-CO 5% | DIN 338 N | 135° | 30°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,30	117	75	10	140830	**7,62**
8,40	117	75	10	140840	**7,62**
8,50	117	75	10	140850	**5,40**
8,60	125	81	5	140860	**8,40**
8,70	125	81	5	140870	**8,40**
8,75	125	81	5	140875	**7,59**
8,80	125	81	5	140880	**8,67**
8,90	125	81	5	140890	**8,67**
9,00	125	81	5	140900	**6,43**
9,10	125	81	5	140910	**9,00**
9,20	125	81	5	140920	**9,00**
9,25	125	81	5	140925	**8,38**
9,30	125	81	5	140930	**10,30**
9,40	125	81	5	140940	**10,30**
9,50	125	81	5	140950	**7,20**
9,60	133	87	5	140960	**11,11**
9,70	133	87	5	140970	**11,11**
9,75	133	87	5	140975	**9,96**
9,80	133	87	5	140980	**11,90**
9,90	133	87	5	140990	**11,90**
10,00	133	87	5	141000	**7,95**
10,25	133	87	5	141025	**13,37**
10,50	133	87	5	141050	**10,29**
10,75	142	94	5	141075	**15,20**
11,00	142	94	5	141100	**11,50**
11,25	142	94	5	141125	**15,63**
11,50	142	94	5	141150	**14,42**
11,75	142	94	5	141175	**19,08**
12,00	151	101	5	141200	**15,04**
12,25	151	101	5	141225	**21,14**
12,50	151	101	5	141250	**19,30**
12,75	151	101	5	141275	**21,91**
13,00	151	101	5	141300	**19,36**
13,25	160	108	1	141325	**29,77**
13,50	160	108	1	141350	**25,68**
14,00	160	108	1	141400	**23,45**
14,50	169	114	1	141450	**33,67**
15,00	169	114	1	141500	**33,94**
15,50	178	120	1	141550	**40,20**
16,00	178	120	1	141600	**40,58**
16,50	184	125	1	141650	**47,78**
17,00	184	125	1	141700	**47,78**
17,50	191	130	1	141750	**53,02**
18,00	191	130	1	141800	**56,80**
18,50	198	135	1	141850	**63,12**
19,00	198	135	1	141900	**63,12**
19,50	205	140	1	141950	**70,70**
20,00	205	140	1	142000	**73,04**



Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,30	1	1430830	**7,62**
8,40	1	1430840	**7,62**
8,50	1	1430850	**6,11**
8,60	1	1430860	**9,25**
8,70	1	1430870	**8,41**
8,75	1	1430875	**8,59**
8,80	1	1430880	**8,67**
8,90	1	1430890	**8,67**
9,00	1	1430900	**7,29**
9,10	1	1430910	**9,00**
9,20	1	1430920	**9,00**
9,25	1	1430925	**9,49**
9,30	1	1430930	**10,29**
9,40	1	1430940	**11,33**
9,50	1	1430950	**8,16**
9,60	1	1430960	**11,11**
9,70	1	1430970	**12,22**
9,75	1	1430975	**10,06**
9,80	1	1430980	**11,89**
9,90	1	1430990	**11,89**
10,00	1	1431000	**8,50**
10,25	1	1431025	**14,31**
10,50	1	1431050	**11,01**
10,75	1	1431075	**16,26**
11,00	1	1431100	**12,31**
11,25	1	1431125	**16,73**
11,50	1	1431150	**15,43**
11,75	1	1431175	**20,45**
12,00	1	1431200	**16,11**
12,25	1	1431225	**22,63**
12,50	1	1431250	**20,66**
12,75	1	1431275	**23,45**
13,00	1	1431300	**20,72**

BROCAS PARA METAL MANGO CILÍNDRICO

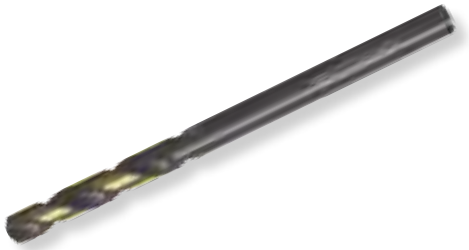
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G INOX PROGRESIVA

DIN 338 N HSS-G PROGRESSIVE INOX

DIN 338 N HSS-G INOX PROGRESSIVE

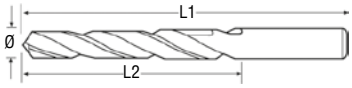
SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE



INOX | HSS-G | DIN 338 N | 130° | 38°







Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	34	9	10	14P0100	**0,94**
1,25	38	10	10	14P0125	**0,96**
1,50	40	11	10	14P0150	**0,96**
1,75	46	12	10	14P0175	**1,14**
2,00	49	13	10	14P0200	**1,14**
2,25	53	14	10	14P0225	**1,14**
2,50	57	16	10	14P0250	**1,14**
2,75	61	18	10	14P0275	**1,37**
3,00	61	18	10	14P0300	**1,21**
3,25	65	20	10	14P0325	**1,69**
3,50	70	22	10	14P0350	**1,69**
3,75	75	25	10	14P0375	**1,69**
4,00	75	25	10	14P0400	**1,59**
4,25	80	28	10	14P0425	**1,92**
4,50	80	28	10	14P0450	**1,92**
4,75	86	32	10	14P0475	**2,30**
5,00	86	32	10	14P0500	**2,16**
5,25	86	32	10	14P0525	**3,06**
5,50	93	36	10	14P0550	**3,06**
5,75	93	36	10	14P0575	**3,33**
6,00	93	36	10	14P0600	**2,96**
6,25	101	40	10	14P0625	**3,79**
6,50	101	40	10	14P0650	**3,79**
6,75	109	45	10	14P0675	**4,11**
7,00	109	45	10	14P0700	**4,13**
7,25	109	45	10	14P0725	**4,86**
7,50	109	45	10	14P0750	**4,86**
7,75	117	51	10	14P0775	**5,95**
8,00	117	51	10	14P0800	**5,79**
8,25	117	51	10	14P0825	**7,20**
8,50	117	51	10	14P0850	**7,20**
8,75	125	57	5	14P0875	**7,92**
9,00	125	57	5	14P0900	**7,83**
9,25	125	57	5	14P0925	**8,74**
9,50	125	57	5	14P0950	**8,74**
9,75	133	63	5	14P0975	**9,66**
10,00	133	63	5	14P1000	**9,32**
10,25	133	63	5	14P1025	**11,30**
10,50	133	63	5	14P1050	**11,30**
10,75	142	71	5	14P1075	**11,73**
11,00	142	71	5	14P1100	**11,56**
11,25	142	71	5	14P1125	**12,49**
11,50	142	71	5	14P1150	**12,49**
11,75	142	71	5	14P1175	**13,79**
12,00	151	78	5	14P1200	**13,47**
12,25	151	78	5	14P1225	**15,45**
12,50	151	78	5	14P1250	**15,45**
12,75	151	78	5	14P1275	**17,08**
13,00	151	78	5	14P1300	**17,18**

Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	2	14R0100	**1,11**
1,25	2	14R0125	**1,13**
1,50	2	14R0150	**1,13**
1,75	2	14R0175	**1,35**
2,00	2	14R0200	**1,35**
2,25	2	14R0225	**1,35**
2,50	2	14R0250	**1,35**
2,75	2	14R0275	**1,61**
3,00	1	14R0300	**1,43**
3,25	1	14R0325	**2,00**
3,50	1	14R0350	**2,00**
3,75	1	14R0375	**2,00**
4,00	1	14R0400	**1,88**
4,25	1	14R0425	**2,28**
4,50	1	14R0450	**2,28**
4,75	1	14R0475	**2,71**
5,00	1	14R0500	**2,55**
5,25	1	14R0525	**3,36**
5,50	1	14R0550	**3,36**
5,75	1	14R0575	**3,66**
6,00	1	14R0600	**3,26**
6,25	1	14R0625	**4,16**
6,50	1	14R0650	**4,17**
6,75	1	14R0675	**4,52**
7,00	1	14R0700	**4,54**
7,25	1	14R0725	**5,35**
7,50	1	14R0750	**5,36**
7,75	1	14R0775	**6,55**
8,00	1	14R0800	**6,37**
8,25	1	14R0825	**7,92**
8,50	1	14R0850	**7,92**
8,75	1	14R0875	**8,71**
9,00	1	14R0900	**8,61**
9,25	1	14R0925	**9,61**
9,50	1	14R0950	**9,61**
9,75	1	14R0975	**10,62**
10,00	1	14R1000	**9,69**
10,25	1	14R1025	**11,74**
10,50	1	14R1050	**11,74**
10,75	1	14R1075	**12,20**
11,00	1	14R1100	**12,02**
11,25	1	14R1125	**12,99**
11,50	1	14R1150	**12,99**
11,75	1	14R1175	**14,34**
12,00	1	14R1200	**14,01**
12,25	1	14R1225	**16,07**
12,50	1	14R1250	**16,07**
12,75	1	14R1275	**17,77**
13,00	1	14R1300	**17,87**

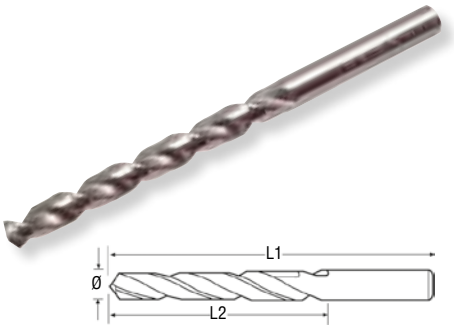
DIN 338 W HSS-CO PARA INOX

DIN 338 W HSS-CO SPECIAL INOX
DIN 338 W HSS-CO SPÉCIAL INOX

SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

ADVANCE MAXIMO RENDIMIENTO

INOX | HSS-CO 5% | DIN 338 W | 135° | 40°





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	34	12	10	130104100	2,44
1,50	40	18	10	130104150	2,53
2,00	49	24	10	130104200	2,57
2,50	57	30	10	130104250	2,52
3,00	61	33	10	130104003	2,67
3,25	65	36	10	130104325	3,08
3,50	70	39	10	130104350	3,12
4,00	75	43	10	130104004	3,45
4,25	75	43	10	130104425	3,93
4,50	80	47	10	130104450	3,93
5,00	86	52	10	130104005	4,29
5,25	86	52	10	130104525	5,19
5,50	93	57	10	130104550	5,24
6,00	93	57	10	130104006	5,82
6,50	101	63	10	130104650	6,92
7,00	109	69	10	130104007	8,01
7,50	109	69	10	130104750	9,39
8,00	117	75	10	130104008	10,22
8,50	117	75	10	130104850	12,42
9,00	125	81	5	130104009	13,77
9,50	125	81	5	130104950	15,25
10,00	133	87	5	130104010	16,42
10,50	133	87	5	130104105	19,14
11,00	142	94	5	130104011	19,79
11,50	142	94	5	130104115	25,33
12,00	151	101	5	130104012	24,82
12,50	151	101	5	130104125	26,07
13,00	151	101	5	130104013	30,62



Ø (mm)	Uds. / *Pcs.*	Cod.	€ €/Unid.
1,00	2	131104100	2,68
1,50	2	131104150	2,78
2,00	2	131104200	2,83
2,50	2	131104250	2,76
3,00	1	131104003	2,94
3,25	1	131104325	3,39
3,50	1	131104350	3,43
4,00	1	131104004	3,80
4,25	1	131104425	4,33
4,50	1	131104450	4,33
5,00	1	131104005	4,71
5,25	1	131104525	5,71
5,50	1	131104550	5,77
6,00	1	131104006	6,40
6,50	1	131104650	7,61
7,00	1	131104007	8,81
7,50	1	131104750	10,34
8,00	1	131104008	11,23
8,50	1	131104850	13,67
9,00	1	131104009	15,15
9,50	1	131104950	16,77
10,00	1	131104010	17,07
10,50	1	131104105	19,91
11,00	1	131104011	20,58
11,50	1	131104115	26,34
12,00	1	131104012	25,81
12,50	1	131104125	27,11
13,00	1	131104013	31,84

BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G+TIN

DIN 338 N HSS-G+TIN • DIN 338 N HSS-G+TIN



HSS-G | TIN | DIN 338 N | 135° | 30°





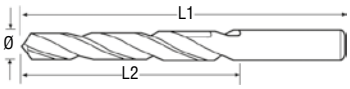
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	32	12	10	130100	1,23
1,25	38	16	10	130125	1,36
1,40*	40	18	10	130140	1,36
1,50	40	18	10	130150	1,33
1,75	46	22	10	130175	1,36
1,80*	46	22	10	130180	1,36
2,00	49	24	10	130200	1,29
2,25	53	27	10	130225	1,36
2,50	57	30	10	130250	1,33
2,75	61	33	10	130275	1,36
3,00	61	33	10	130300	1,34
3,25	65	36	10	130325	1,76
3,50	70	39	10	130350	1,76
3,75	70	39	10	130375	1,95
3,80*	75	43	10	130380	1,95
4,00	75	43	10	130400	1,83
4,25	75	43	10	130425	2,19
4,50	80	47	10	130450	2,19
4,75	80	47	10	130475	2,38
5,00	86	52	10	130500	2,25
5,20*	86	52	10	130520	3,17
5,25	86	52	10	130525	3,04
5,50	93	57	10	130550	3,04
5,75	93	57	10	130575	3,42
6,00	93	57	10	130600	3,20
6,25	101	63	10	130625	4,49
6,50	101	63	10	130650	4,40
6,75	109	69	10	130675	5,49
7,00	109	69	10	130700	5,19
7,25	109	69	10	130725	5,65
7,50	109	69	10	130750	5,55
7,75	117	75	10	130775	6,38
8,00	117	75	10	130800	6,03
8,25	117	75	10	130825	7,27
8,50	117	75	10	130850	7,13
8,75	125	81	5	130875	8,36
9,00	125	81	5	130900	7,59
9,25	125	81	5	130925	9,37
9,50	125	81	5	130950	9,19
9,75	133	87	5	130975	10,48
10,00	133	87	5	131000	9,58
10,50	133	87	5	131050	11,81
11,00	142	94	5	131100	12,76
11,50	142	94	5	131150	15,12
12,00	151	101	5	131200	16,88
12,50	151	101	5	131250	18,47
13,00	151	101	5	131300	19,48

Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	2	1320100	1,49
1,25	2	1320125	1,60
1,40*	2	1320140	1,60
1,50	2	1320150	1,60
1,75	2	1320175	1,60
1,80*	2	1320180	1,60
2,00	2	1320200	1,55
2,25	2	1320225	1,60
2,50	2	1320250	1,60
2,75	2	1320275	1,60
3,00	1	1320300	1,61
3,25	1	1320325	2,13
3,50	1	1320350	2,13
3,75	1	1320375	2,29
3,80*	1	1320380	2,29
4,00	1	1320400	2,21
4,25	1	1320425	2,64
4,50	1	1320450	2,64
4,75	1	1320475	2,82
5,00	1	1320500	2,53
5,20*	1	1320520	3,49
5,25	1	1320525	3,41
5,50	1	1320550	3,41
5,75	1	1320575	3,76
6,00	1	1320600	3,58
6,25	1	1320625	4,93
6,50	1	1320650	4,93
6,75	1	1320675	6,04
7,00	1	1320700	5,82
7,25	1	1320725	6,22
7,50	1	1320750	6,22
7,75	1	1320775	7,02
8,00	1	1320800	6,76
8,25	1	1320825	7,99
8,50	1	1320850	7,99
8,75	1	1320875	9,19
9,00	1	1320900	8,51
9,25	1	1320925	10,30
9,50	1	1320950	10,31
9,75	1	1320975	11,53
10,00	1	1321000	10,15
10,50	1	1321050	12,52
11,00	1	1321100	13,53
11,50	1	1321150	16,03
12,00	1	1321200	17,90
12,50	1	1321250	19,59
13,00	1	1321300	20,65

*Hasta agotar existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

DIN 338 S HSS-G PARA ALUMINIO
DIN 338 S HSS-G SPECIAL ALUMINIUM
DIN 338 S HSS-G SPÉCIALE ALUMINIUM





AL PL HSS-G DIN 338 S "S" 135°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,50	57	30	1	130107250	**2,32**
3,00	65	33	1	130107003	**2,09**
3,25	65	36	1	130107325	**2,75**
3,50	70	39	1	130107350	**2,97**
4,00	75	43	1	130107004	**2,88**
4,25	75	43	1	130107425	**4,02**
4,50	80	47	1	130107450	**4,28**
5,00	86	52	1	130107005	**4,20**
5,25	86	52	1	130107525	**4,67**
5,50	83	57	1	130107550	**4,67**
6,00	93	57	1	130107006	**4,67**
6,50	101	63	1	130107650	**6,23**
7,00	109	69	1	130107007	**6,23**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
7,50	109	69	1	130107750	**8,52**
8,00	117	75	1	130107008	**6,91**
8,50	117	75	1	130107850	**8,52**
9,00	125	81	1	130107009	**9,14**
9,50	125	81	1	130107950	**9,74**
10,00	133	87	1	130107010	**10,20**
10,50	133	87	1	130107105	**12,34**
11,00	142	94	1	130107011	**13,85**
11,50	142	94	1	130107115	**15,15**
12,00	151	101	1	130107012	**17,63**
12,50	151	101	1	130107125	**19,43**
13,00	151	101	1	130107013	**21,36**

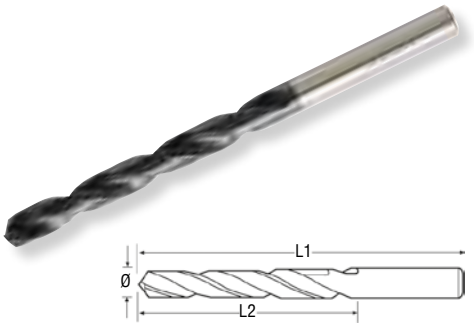
BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-CO + TIALN

DIN 338 N HSS-CO + TIALN • DIN 338 N HSS-CO + TIALN

ADVANCE MAXIMO RENDIMIENTO



ACERO 1100 - 1400 N/mm²

HSS-CO 5% | TIALN | DIN 338 N

30° | 135°

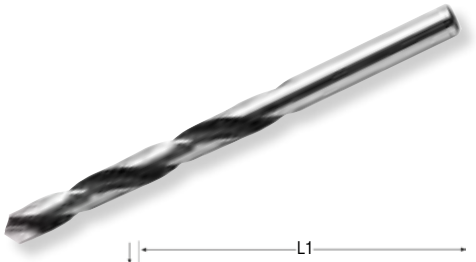


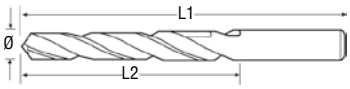
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	34	12	1	130126001	**5,23**
1,50	40	18	1	130126150	**5,51**
2,00	49	24	1	130126002	**5,82**
2,50	57	30	1	130126250	**7,46**
3,00	61	33	1	130126003	**6,93**
3,25	65	36	1	130126325	**7,46**
3,50	70	39	1	130126350	**7,83**
4,00	75	43	1	130126004	**8,78**
4,25	75	43	1	130126425	**8,33**
4,50	80	47	1	130126450	**7,64**
5,00	86	52	1	130126005	**9,65**
5,25	86	52	1	130126525	**11,78**
5,50	93	57	1	130126550	**10,67**
6,00	93	57	1	130126006	**10,21**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,50	**101**	63	1	130126650	**15,21**
7,00	**109**	69	1	130126007	**16,70**
7,50	**109**	69	1	130126750	**19,62**
8,00	**117**	75	1	130126008	**19,45**
8,50	**117**	75	1	130126850	**21,79**
9,00	**125**	81	1	130126009	**25,44**
9,50	**125**	81	1	130126950	**26,90**
10,00	**133**	87	1	130126010	**28,68**
10,50	**133**	87	1	130126105	**37,49**
11,00	**142**	94	1	130126011	**38,28**
11,50	**142**	94	1	130126115	**39,77**
12,00	**151**	101	1	130126012	**48,40**
12,50	**151**	101	1	130126125	**52,37**
13,00	**151**	101	1	130126013	**52,20**

K20 DIN 338 N HSS-MD

K20 DIN 338 N HSS-HM • K20 DIN N 338 HSS-HM







Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	61	33	1	16M0300	**18, 24**
3,50	70	39	1	16M0350	**18,24**
4,00	75	43	1	16M0400	**18,24**
4,50	80	47	1	16M0450	**18,24**
5,00	86	52	1	16M0500	**18,24**
5,50	93	57	1	16M0550	**18,24**
6,00	93	57	1	16M0600	**19,50**
6,50	101	63	1	16M0650	**21,84**
7,00	109	69	1	16M0700	**24,18**
7,50	109	69	1	16M0750	**25,84**
8,00	117	75	1	16M0800	**27,09**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,50	**117**	75	1	16M0850	**28,84**
9,00	**125**	81	1	16M0900	**29,19**
9,50	**125**	81	1	16M0950	**32,09**
10,00	**133**	87	1	16M1000	**34,69**
10,50	**133**	87	1	16M1050	**43,21**
11,00	**142**	94	1	16M1100	**46,90**
11,50	**142**	94	1	16M1150	**49,69**
12,00	**151**	101	1	16M1200	**53,59**
12,50	**151**	101	1	16M1250	**57,43**
13,00	**151**	101	1	16M1300	**61,53**
14,00	**160**	108	1	16M1400	**69,73**

BROCAS PARA METAL MANGO REDUCIDO

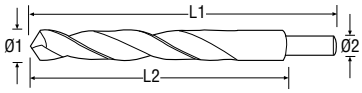
REDUCED SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G MANGO REDUCIDO

DIN 338 N HSS-G REDUCED SHANK • DIN 338 N HSS-G QUEUE RÉDUITE







Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
10,00	9,70	133	87	1	181000	**9,01**
10,50	9,70	133	87	1	181050	**9,26**
11,00	9,70	142	94	1	181100	**9,01**
11,50	9,70	142	94	1	181150	**9,26**
12,00	9,70	151	101	1	181200	**10,28**
12,25	9,70	151	101	1	181225	**13,81**
12,50	9,70	151	101	1	181250	**11,38**
12,75	9,70	151	101	1	181275	**15,44**
13,00	9,70	151	101	1	181300	**11,74**
13,25	12,70	160	108	1	181325	**14,87**
13,50	12,70	160	108	1	181350	**15,23**
13,75	12,70	160	108	1	181375	**17,06**
14,00	12,70	160	108	1	181400	**14,89**
14,25	12,70	169	114	1	181425	**20,50**
14,50	12,70	169	114	1	181450	**17,63**
14,75	12,70	169	114	1	181475	**22,11**
15,00	12,70	169	114	1	181500	**17,83**
15,25	12,70	178	120	1	181525	**26,77**
15,50	12,70	178	120	1	181550	**22,33**
15,75	12,70	178	120	1	181575	**30,62**
16,00	12,70	178	120	1	181600	**20,96**
16,25	12,70	184	125	1	181625	**33,24**
16,50	12,70	184	125	1	181650	**24,50**

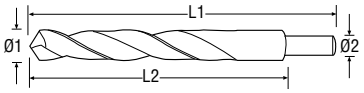
Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
16,75	12,70	184	125	1	181675	**36,39**
17,00	12,70	184	125	1	181700	**24,53**
17,25	12,70	191	130	1	181725	**37,62**
17,50	12,70	191	130	1	181750	**29,09**
17,75	12,70	191	130	1	181775	**38,49**
18,00	12,70	191	130	1	181800	**27,71**
18,25	12,70	198	135	1	181825	**41,12**
18,50	12,70	198	135	1	181850	**35,05**
18,75	12,70	198	135	1	181875	**39,97**
19,00	12,70	198	135	1	181900	**33,15**
19,50	12,70	205	140	1	181950	**36,67**
20,00	12,70	205	140	1	182000	**39,38**
20,50	12,70	213	145	1	182050	**45,62**
21,00	12,70	213	145	1	182100	**47,47**
21,50	12,70	221	150	1	182150	**51,62**
22,00	12,70	221	150	1	182200	**51,05**
22,50	12,70	221	150	1	182250	**54,42**
23,00	12,70	229	155	1	182300	**54,96**
23,50	12,70	229	155	1	182350	**58,11**
24,00	12,70	236	160	1	182400	**59,07**
24,50	12,70	236	160	1	182450	**63,34**
25,00	12,70	236	160	1	182500	**63,47**
26,00	12,70	243	165	1	182600	**80,32**

DIN 338 N HSS-CO MANGO REDUCIDO

DIN 338 N HSS-CO REDUCED SHANK • DIN338 N HSS-CO QUEUE RÉDUITE



HSS-CO 5% | DIN 338 N | 135° | 30°



Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
12,00	9,70	151	101	1	1841200	**20,54**
13,00	9,70	151	101	1	1841300	**25,41**
13,50	12,70	160	108	1	1841350	**28,68**
14,00	12,70	160	108	1	1841400	**27,01**
14,50	12,70	169	114	1	1841450	**34,33**
15,00	12,70	169	114	1	1841500	**34,86**
15,50	12,70	178	120	1	1841550	**43,98**
16,00	12,70	178	120	1	1841600	**41,63**

Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
16,50	12,70	184	125	1	1841650	**50,55**
17,00	12,70	184	125	1	1841700	**50,56**
17,50	12,70	191	130	1	1841750	**58,05**
18,00	12,70	191	130	1	1841800	**57,20**
18,50	12,70	198	135	1	1841850	**62,85**
19,00	12,70	198	135	1	1841900	**64,32**
19,50	12,70	205	140	1	1841950	**70,13**
20,00	12,70	205	140	1	1842000	**71,97**

BROCAS PARA METAL MANGO CILÍNDRICO

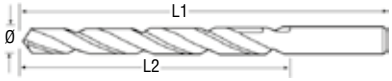
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 340 N HSS-G SERIE LARGA

DIN 340 N HSS-G LONG SERIES

DIN 340 N HSS-G SÉRIE LONGUE





HSS-G | DIN 340 N | 118° | 30°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	56	33	1	100100	**2,74**
1,25	65	41	1	100125	**2,97**
1,50	70	45	1	100150	**2,97**
1,75	80	53	1	100175	**2,97**
2,00	85	56	1	100200	**2,40**
2,10	85	56	1	100210	**3,96**
2,25	90	59	1	100225	**2,46**
2,50	95	62	1	100250	**2,33**
2,60	95	62	1	100260	**3,30**
2,75	100	66	1	100275	**2,61**
2,80	100	66	1	100280	**3,30**
3,00	100	66	1	100300	**2,28**
3,10	106	69	1	100310	**4,20**
3,25	106	69	1	100325	**2,74**
3,30	112	73	1	100330	**2,84**
3,40	112	73	1	100340	**4,20**
3,50	112	73	1	100350	**2,61**
3,60	112	73	1	100360	**3,23**
3,75	112	73	1	100375	**3,23**
4,00	119	78	1	100400	**2,72**
4,10	119	78	1	100410	**3,83**
4,20	119	78	1	100420	**3,83**
4,25	119	78	1	100425	**3,79**
4,50	126	82	1	100450	**3,45**
4,60	126	82	1	100460	**4,07**
4,75	126	82	1	100475	**4,11**
4,80	132	87	1	100480	**4,29**
4,90	132	87	1	100490	**4,29**
5,00	132	87	1	100500	**3,57**
5,10	132	87	1	100510	**4,90**
5,25	132	87	1	100525	**4,85**
5,50	139	91	1	100550	**4,73**
5,60	139	91	1	100560	**5,37**
5,70	139	91	1	100570	**5,37**
5,75	139	91	1	100575	**5,20**
5,80	139	91	1	100580	**6,28**
6,00	139	91	1	100600	**4,37**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,10	148	97	1	100610	**6,69**
6,25	148	97	1	100625	**6,85**
6,40	148	97	1	100640	**6,86**
6,50	148	97	1	100650	**5,76**
6,75	156	102	1	100675	**6,67**
7,00	156	102	1	100700	**5,95**
7,10	156	102	1	100710	**7,17**
7,25	156	102	1	100725	**7,17**
7,50	156	102	1	100750	**7,06**
7,75	165	109	1	100775	**7,47**
8,00	165	109	1	100800	**7,65**
8,25	165	109	1	100825	**9,03**
8,50	165	109	1	100850	**8,92**
8,75	175	115	1	100875	**10,43**
9,00	175	115	1	100900	**9,31**
9,25	175	115	1	100925	**11,77**
9,50	175	121	1	100950	**10,28**
9,75	184	121	1	100975	**12,33**
10,00	184	121	1	101000	**10,89**
10,25	184	121	1	101025	**13,06**
10,50	184	121	1	101050	**13,49**
10,75	195	128	1	101075	**14,44**
11,00	195	128	1	101100	**15,01**
11,25	195	128	1	101125	**18,01**
11,50	195	128	1	101150	**16,41**
11,75	205	134	1	101175	**19,69**
12,00	205	134	1	101200	**17,84**
12,25	205	134	1	101225	**20,55**
12,50	205	134	1	101250	**19,49**
12,75	205	134	1	101275	**24,29**
13,00	205	134	1	101300	**21,02**
13,50	214	140	1	101350	**25,30**
14,00	214	140	1	101400	**27,34**
14,50	220	144	1	101450	**29,90**
15,00	220	144	1	101500	**29,54**
16,00	227	149	1	101600	**36,10**

DIN 340 N HSS-CO SERIE LARGA

DIN 340 N HSS-CO LONG SERIES
DIN 340 N HSS-CO SÉRIE LONGUE





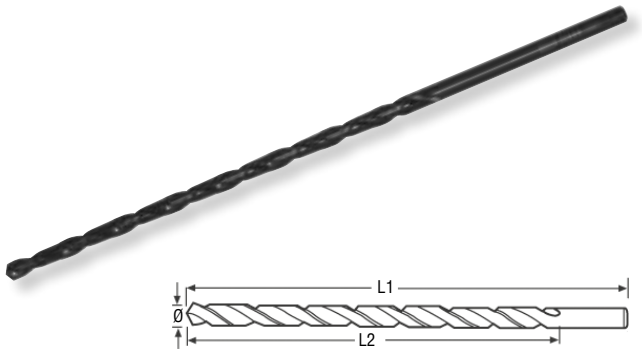


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	85	56	1	14L0200	**6,66**
2,50	95	62	1	14L0250	**6,66**
3,00	100	66	1	14L0300	**6,66**
3,20	106	69	1	14L0320	**8,17**
3,25	106	69	1	14L0325	**6,25**
3,50	112	73	1	14L0350	**7,89**
3,75	112	73	1	14L0375	**7,13**
4,00	119	78	1	14L0400	**7,89**
4,25	119	78	1	14L0425	**7,41**
4,50	126	82	1	14L0450	**10,08**
4,75	126	82	1	14L0475	**9,21**
5,00	132	87	1	14L0500	**10,08**
5,50	139	91	1	14L0550	**11,04**
6,00	139	91	1	14L0600	**11,04**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,50	148	97	1	14L0650	**14,02**
7,00	156	102	1	14L0700	**15,22**
7,50	156	102	1	14L0750	**18,63**
8,00	165	109	1	14L0800	**17,16**
8,50	165	109	1	14L0850	**21,17**
9,00	175	115	1	14L0900	**21,17**
9,50	175	115	1	14L0950	**24,63**
10,00	184	121	1	14L1000	**33,22**
10,50	184	121	1	14L1050	**41,68**
11,00	195	128	1	14L1100	**43,41**
11,50	195	128	1	14L1150	**56,28**
12,00	205	134	1	14L1200	**46,62**
12,50	205	134	1	14L1250	**59,48**
13,00	205	134	1	14L1300	**59,48**

DIN 1869 N HSS-G SERIE EXTRALARGA

DIN 1869 N HSS-G EXTRA LONG SERIES
DIN 1869 N HSS-G EXTRA LONG



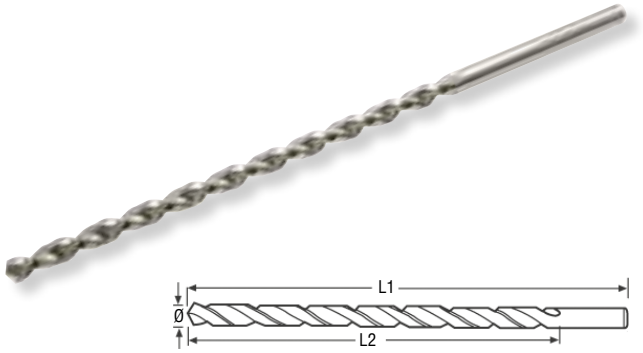
HSS-G | DIN 1869 N | 118° | 30°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	125	85	1	1002125	**8,96**
2,50	140	95	1	1002514	**9,56**
3,00	150	100	1	1003150	**10,61**
3,00	190	130	1	1003190	**12,07**
3,50	165	115	1	1003516	**11,43**
3,50	210	145	1	1003521	**14,78**
3,50	265	180	1	1003526	**19,94**
4,00	175	120	1	1004175	**12,02**
4,00	220	150	1	1004220	**15,58**
4,00	280	190	1	1004280	**22,14**
4,50	185	125	1	1004518	**13,47**
4,50	235	160	1	1004523	**16,31**
4,50	295	200	1	1004529	**24,02**
5,00	195	135	1	1005195	**13,69**
5,00	245	170	1	1005245	**16,81**
5,00	315	210	1	1005315	**24,53**
5,50	205	140	1	1005520	**16,78**
5,50	260	180	1	1005526	**22,38**
5,50	330	235	1	1005533	**28,68**
6,00	205	140	1	1006205	**16,78**
6,00	260	180	1	1006260	**26,55**
6,00	330	225	1	1006330	**30,34**
6,50	215	150	1	1006521	**17,67**
6,50	275	190	1	1006527	**27,08**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,50	350	235	1	1006535	**36,03**
7,00	225	155	1	1007225	**21,92**
7,00	290	200	1	1007290	**30,03**
7,00	370	250	1	1007370	**41,33**
7,50	225	155	1	1007522	**26,86**
7,50	305	210	1	1007530	**36,33**
7,50	370	250	1	1007537	**48,70**
8,00	240	165	1	1008240	**28,97**
8,00	305	210	1	1008305	**36,70**
8,00	390	265	1	1008390	**53,25**
8,50	240	165	1	1008524	**38,18**
8,50	305	210	1	1008530	**43,31**
8,50	390	265	1	1008539	**68,23**
9,00	250	175	1	1009250	**41,17**
9,00	320	220	1	1009320	**47,32**
9,00	410	280	1	1009410	**76,67**
9,50	250	175	1	1009525	**45,36**
9,50	320	220	1	1009532	**55,84**
9,50	410	280	1	1009541	**78,17**
10,00	265	185	1	1010265	**47,64**
10,00	340	235	1	1010340	**61,68**
10,00	430	295	1	1010430	**82,59**
12,00	295	205	1	1012295	**66,03**
12,00	375	260	1	1012375	**80,27**

DIN 1869 S HSS-CO SERIE EXTRALARGA

DIN 1869 S HSS-CO EXTRA LONG SERIES
DIN 1869 S HSS-CO EXTRA LONG



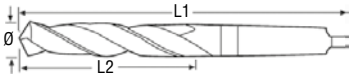
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	125	85	1	130127020125	**17,69**
2,50	140	95	1	130127250140	**18,13**
3,00	150	100	1	130127030150	**19,30**
3,20	155	105	1	130127320155	**23,75**
3,50	210	145	1	130127350210	**25,88**
4,00	175	120	1	130127040175	**19,71**
4,00	220	150	1	130127040220	**25,74**
4,25	220	150	1	130127425220	**39,67**
4,50	235	160	1	130127450235	**30,12**
5,00	195	135	1	130127050195	**25,17**
5,00	245	170	1	130127205245	**32,63**
5,50	260	180	1	130127550260	**36,77**
6,00	205	140	1	130127060205	**23,39**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	260	180	1	130127060260	**32,00**
6,50	275	190	1	130127650275	**40,83**
7,00	295	200	1	130127070295	**44,00**
8,00	240	165	1	130127080290	**41,46**
8,00	305	210	1	130127080305	**50,30**
8,50	305	210	1	130127850305	**60,39**
9,00	320	220	1	130127090320	**66,69**
10,00	265	185	1	130127100265	**59,13**
10,00	340	235	1	130127100340	**82,47**
11,00	360	250	1	130127110360	**100,44**
12,00	380	260	1	130127120380	**119,35**

BROCAS PARA METAL MANGO CÓNICO
TAPPER SHANK METAL DRILLS • FORETS METAL QUEUE CONIQUE

DIN 345 N HSS-G
DIN 345 N HSS-G • DIN 345 N HSS-G





HSS-G | DIN 345 N | 118° | 30°

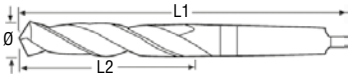
Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
4,00	1	124	43	1	150400	**17,88**
4,50	1	128	47	1	150450	**19,32**
5,00	1	133	52	1	150500	**15,20**
5,50	1	138	57	1	150550	**16,46**
5,75	1	138	57	1	150575	**16,99**
6,00	1	138	57	1	150600	**14,78**
6,25	1	144	63	1	150625	**16,07**
6,50	1	144	63	1	150650	**16,27**
6,75	1	150	69	1	150675	**16,28**
7,00	1	150	69	1	150700	**15,71**
7,50	1	150	69	1	150750	**17,28**
7,75	1	156	75	1	150775	**20,43**
8,00	1	156	75	1	150800	**16,11**
8,25	1	156	75	1	150825	**21,37**
8,50	1	156	75	1	150850	**17,65**
8,75	1	162	81	1	150875	**21,74**
9,00	1	162	81	1	150900	**17,31**
9,50	1	162	81	1	150950	**17,92**
9,75	1	168	87	1	150975	**22,15**
10,00	1	168	87	1	151000	**16,85**
10,25	1	168	87	1	151025	**22,73**
10,50	1	168	87	1	151050	**18,49**
10,75	1	175	94	1	151075	**20,80**
11,00	1	175	94	1	151100	**18,25**
11,25	1	175	94	1	151125	**24,65**
11,50	1	175	94	1	151150	**20,42**
11,75	1	175	94	1	151175	**24,08**
12,00	1	182	101	1	151200	**19,07**
12,25	1	182	101	1	151225	**24,65**
12,50	1	182	101	1	151250	**22,73**
12,75	1	182	101	1	151275	**26,97**
13,00	1	182	101	1	151300	**20,37**
13,25	1	189	108	1	151325	**27,93**
13,50	1	189	108	1	151350	**22,54**
13,75	1	189	108	1	151375	**27,86**
14,00	1	189	108	1	151400	**22,35**
14,25	2	212	114	1	151425	**29,72**
14,50	2	212	114	1	151450	**25,58**
14,75	2	212	114	1	151475	**31,20**
15,00	2	212	114	1	151500	**23,98**
15,25	2	218	120	1	151525	**31,58**
15,50	2	218	120	1	151550	**25,75**
15,75	2	218	120	1	151575	**32,51**
16,00	2	218	120	1	151600	**26,07**
16,25	2	223	125	1	151625	**35,29**
16,50	2	223	125	1	151650	**29,34**

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
16,75	2	223	125	1	151675	**39,52**
17,00	2	223	125	1	151700	**28,92**
17,25	2	228	130	1	151725	**39,59**
17,50	2	228	130	1	151750	**31,19**
17,75	2	228	130	1	151775	**39,68**
18,00	2	228	130	1	151800	**29,63**
18,25	2	233	135	1	151825	**44,38**
18,50	2	233	135	1	151850	**34,88**
18,75	2	233	135	1	151875	**45,18**
19,00	2	233	135	1	151900	**33,39**
19,25	2	238	140	1	151925	**47,00**
19,50	2	238	140	1	151950	**37,56**
19,75	2	238	140	1	151975	**47,39**
20,00	2	238	140	1	152000	**37,00**
20,25	2	243	145	1	152025	**51,83**
20,50	2	243	145	1	152050	**45,08**
20,75	2	243	145	1	152075	**52,59**
21,00	2	243	145	1	152100	**40,76**
21,25	2	248	150	1	152125	**56,47**
21,50	2	248	150	1	152150	**47,22**
21,75	2	248	150	1	152175	**55,91**
22,00	2	248	150	1	152200	**42,69**
22,25	2	253	155	1	152225	**62,21**
22,50	2	253	155	1	152250	**46,44**
22,75	2	253	155	1	152275	**63,96**
23,00	2	253	155	1	152300	**51,21**
23,25	3	276	155	1	152325	**67,62**
23,50	3	276	155	1	152350	**55,36**
23,75	3	281	160	1	152375	**69,09**
24,00	3	281	160	1	152400	**52,83**
24,25	3	281	160	1	152425	**73,01**
24,50	3	281	160	1	152450	**61,49**
24,75	3	281	160	1	152475	**76,52**
25,00	3	281	160	1	152500	**58,57**
25,25	3	286	165	1	152525	**83,22**
25,50	3	286	165	1	152550	**65,38**
25,75	3	286	165	1	152575	**86,18**
26,00	3	286	165	1	152600	**64,73**
26,25	3	286	165	1	152625	**89,72**
26,50	3	286	165	1	152650	**74,50**
26,75	3	291	170	1	152675	**93,61**
27,00	3	291	170	1	152700	**69,19**
27,25	3	291	170	1	152725	**96,96**
27,50	3	291	170	1	152750	**77,10**
27,75	3	291	170	1	152775	**96,59**

BROCAS PARA METAL MANGO CÓNICO
TAPPER SHANK METAL DRILLS • FORETS METAL QUEUE CONIQUE

DIN 345 N HSS-G
DIN 345 N HSS-G • DIN 345 N HSS-G





HSS-G | DIN 345 N | 118° | 30°

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
28,00	3	291	170	1	152800	**75,12**
28,25	3	296	175	1	152825	**105,56**
28,50	3	296	175	1	152850	**86,38**
28,75	3	296	175	1	152875	**106,52**
29,00	3	296	175	1	152900	**83,23**
29,25	3	296	175	1	152925	**120,01**
29,50	3	296	175	1	152950	**95,48**
29,75	3	296	175	1	152975	**121,55**
30,00	3	296	175	1	153000	**96,60**
30,25	3	301	180	1	153025	**129,44**
30,50	3	301	180	1	153050	**108,67**
30,75	3	301	180	1	153075	**132,33**
31,00	3	301	180	1	153100	**103,34**
31,25	3	301	180	1	153125	**137,92**
31,50	3	301	180	1	153150	**119,25**
31,75	3	306	185	1	153175	**143,70**
32,00	4	334	185	1	153200	**113,09**
32,25	4	334	185	1	153225	**146,43**
32,50	4	334	185	1	153250	**141,38**
32,75	4	334	185	1	153275	**160,61**
33,00	4	334	185	1	153300	**127,18**
33,25	4	334	185	1	153325	**165,19**
33,50	4	334	185	1	153350	**151,43**
33,75	4	339	190	1	153375	**172,38**
34,00	4	339	190	1	153400	**134,44**
34,25	4	339	190	1	153425	**177,37**
34,50	4	339	190	1	153450	**160,61**
34,75	4	339	190	1	153475	**186,34**
35,00	4	339	190	1	153500	**143,49**
35,25	4	339	190	1	153525	**186,34**
35,50	4	339	190	1	153550	**177,37**
35,75	4	344	195	1	153575	**197,91**
36,00	4	344	195	1	153600	**159,17**
36,50	4	344	195	1	153650	**189,93**
37,00	4	344	195	1	153700	**173,92**
37,50	4	344	195	1	153750	**197,91**
38,00	4	349	200	1	153800	**182,86**
38,50	4	349	200	1	153850	**208,10**
39,00	4	349	200	1	153900	**187,89**
39,50	4	349	200	1	153950	**216,66**
40,00	4	349	200	1	154000	**201,67**
40,50	4	354	205	1	154050	**225,85**
41,00	4	354	205	1	154100	**208,74**
41,50	4	354	205	1	154150	**249,59**
42,00	4	354	205	1	154200	**227,73**

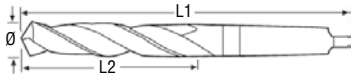
Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
42,50	4	354	205	1	154250	**259,76**
43,00	4	359	210	1	154300	**239,84**
43,50	4	359	210	1	154350	**275,72**
44,00	4	359	210	1	154400	**255,16**
44,50	4	359	210	1	154450	**289,89**
45,00	4	359	210	1	154500	**266,12**
45,50	4	364	215	1	154550	**304,26**
46,00	4	364	215	1	154600	**281,04**
46,50	4	364	215	1	154650	**318,23**
47,00	4	364	215	1	154700	**292,37**
47,50	4	364	215	1	154750	**324,21**
48,00	4	369	220	1	154800	**302,37**
48,50	4	369	220	1	154850	**350,34**
49,00	4	369	220	1	154900	**306,54**
49,50	4	369	220	1	154950	**354,73**
50,00	4	369	220	1	155000	**316,72**
50,50	4	369	220	1	155050	**413,18**
51,00	5	412	225	1	155100	**371,98**
52,00	5	412	225	1	155200	**419,17**
53,00	5	412	225	1	155300	**429,96**
54,00	5	417	230	1	155400	**457,76**
55,00	5	417	230	1	155500	**480,61**
56,00	5	417	230	1	155600	**534,37**
57,00	5	422	235	1	155700	**565,71**
58,00	5	422	235	1	155800	**574,94**
59,00	5	422	235	1	155900	**596,87**
60,00	5	422	235	1	156000	**580,02**
61,00	5	427	240	1	156100	**689,78**
62,00	5	427	240	1	156200	**679,22**
63,00	5	427	240	1	156300	**708,62**
64,00	5	432	245	1	156400	**743,89**
65,00	5	432	245	1	156500	**780,54**
66,00	5	432	245	1	156600	**870,20**
67,00	5	432	245	1	156700	**887,95**
68,00	5	437	250	1	156800	**919,84**
69,00	5	437	250	1	156900	**960,77**
70,00	5	437	250	1	157000	**970,56**
71,00	5	437	250	1	157100	**982,75**
72,00	5	442	255	1	157200	**1.018,46**
75,00	5	442	255	1	157500	**1.066,74**
78,00	6	514	260	1	157800	**1.486,27**
80,00	6	519	265	1	158000	**1.692,22**
85,00	6	519	265	1	158500	**1.782,97**
90,00	6	524	270	1	159000	**1.999,26**
95,00	6	529	275	1	159500	**2.281,84**

BROCAS PARA METAL MANGO CÓNICO
TAPPER SHANK METAL DRILLS • FORETS METAL QUEUE CONIQUE

DIN 345 N HSS-CO
DIN 345 N HSS-CO • DIN 345 N HSS-CO







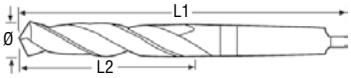
Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
10,00	1	168	87	1	14C1000	**65,61**
11,00	1	175	94	1	14C1100	**66,30**
11,50	1	175	94	1	14C1150	**70,85**
12,00	1	182	101	1	14C1200	**66,16**
12,50	1	182	101	1	14C1250	**70,85**
13,00	1	182	101	1	14C1300	**63,47**
13,50	1	189	102	1	14C1350	**79,42**
14,00	1	189	102	1	14C1400	**74,18**
14,50	2	212	114	1	14C1450	**108,78**
15,00	2	212	114	1	14C1500	**88,80**
15,50	2	218	120	1	14C1550	**114,50**
16,00	2	218	120	1	14C1600	**98,14**
16,50	2	223	125	1	14C1650	**117,44**
17,00	2	223	125	1	14C1700	**100,09**
17,50	2	228	130	1	14C1750	**123,41**
18,00	2	228	130	1	14C1800	**102,77**
18,50	2	233	135	1	14C1850	**127,33**
19,00	2	233	135	1	14C1900	**117,03**
19,50	2	238	140	1	14C1950	**134,60**
20,00	2	238	140	1	14C2000	**122,78**
20,50	2	243	145	1	14C2050	**131,91**
21,00	2	243	145	1	14C2100	**143,00**

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
21,50	2	248	150	1	14C2150	**154,15**
22,00	2	248	150	1	14C2200	**155,07**
22,50	2	253	155	1	14C2250	**159,16**
23,00	2	253	155	1	14C2300	**161,28**
24,00	3	281	160	1	14C2400	**165,75**
25,00	3	281	160	1	14C2500	**184,97**
26,00	3	286	165	1	14C2600	**211,29**
27,00	3	291	170	1	14C2700	**231,21**
28,00	3	291	170	1	14C2800	**250,55**
29,00	3	296	175	1	14C2900	**258,18**
30,00	3	296	175	1	14C3000	**275,37**
31,00	3	301	180	1	14C3100	**294,85**
32,00	4	334	185	1	14C3200	**301,34**
33,00	4	334	185	1	14C3300	**343,44**
34,00	4	339	190	1	14C3400	**360,53**
35,00	4	339	190	1	14C3500	**385,33**
36,00	4	344	195	1	14C3600	**400,95**
37,00	4	344	195	1	14C3700	**411,46**
38,00	4	349	200	1	14C3800	**478,14**
39,00	4	349	200	1	14C3900	**536,89**
40,00	4	349	200	1	14C4000	**566,96**

DIN 345 N HSS-G+TIN

DIN 345 N HSS-G+TIN • DIN 345 N HSS-G+TIN





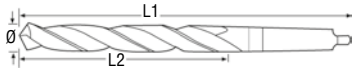
HSS-G | TIN | DIN 345 N | 118° | 30°

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
13,50	1	189	108	1	1351350	**69,55**
14,00	1	189	108	1	1351400	**69,63**
14,50	2	212	114	1	1351450	**86,30**
15,00	2	212	114	1	1351500	**86,30**
15,50	2	218	120	1	1351550	**89,62**
16,00	2	218	120	1	1351600	**87,18**
16,50	2	223	125	1	1351650	**93,35**
17,00	2	223	125	1	1351700	**92,45**
17,50	2	228	130	1	1351750	**106,84**
18,00	2	228	130	1	1351800	**95,73**
18,50	2	233	135	1	1351850	**111,79**
19,00	2	233	135	1	1351900	**109,95**
19,50	2	238	140	1	1351950	**126,45**
20,00	2	238	140	1	1352000	**126,49**
20,50	2	243	145	1	1352050	**129,76**

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
21,00	2	243	145	1	1352100	**128,69**
21,50	2	248	150	1	1352150	**141,70**
22,00	2	248	150	1	1352200	**147,38**
22,50	2	253	155	1	1352250	**162,65**
23,00	2	253	155	1	1352300	**160,77**
23,50	3	276	155	1	1352350	**175,50**
24,00	3	281	160	1	1352400	**176,68**
24,50	3	281	160	1	1352450	**192,82**
25,00	3	281	160	1	1352500	**189,24**
26,00	3	286	165	1	1352600	**201,42**
27,00	3	291	170	1	1352700	**213,92**
28,00	3	291	170	1	1352800	**231,35**
29,00	3	296	175	1	1352900	**249,46**
30,00	3	296	175	1	1353000	**267,51**

DIN 341 N HSS-G SERIE LARGA
DIN 341 N HSS-G LONG SERIES • DIN 341 N HSS-G SERIE LONGUE





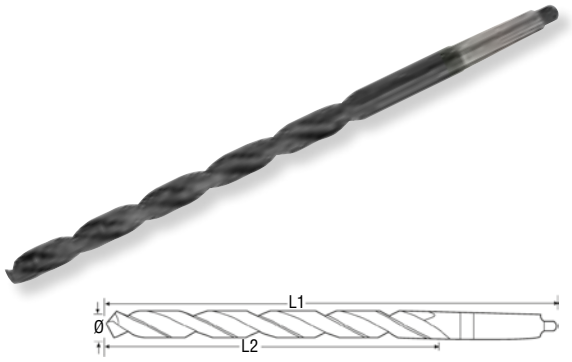
HSS-G | DIN 341 N | 118° | 30°

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
14,00	2	223	142	1	15A1400	**67,24**
15,00	2	245	147	1	15A1500	**77,32**
15,50	2	251	153	1	15A1550	**79,06**
16,00	2	251	153	1	15A1600	**85,17**
16,50	2	257	159	1	15A1650	**82,47**
17,00	2	257	159	1	15A1700	**90,46**
17,50	2	263	165	1	15A1750	**83,35**
18,00	2	263	165	1	15A1800	**98,07**
18,50	2	269	171	1	15A1850	**95,13**
19,00	2	269	171	1	15A1900	**104,02**
19,50	2	275	177	1	15A1950	**103,07**
20,00	2	275	177	1	15A2000	**110,53**
20,50	2	282	184	1	15A2050	**119,59**
21,00	2	282	184	1	15A2100	**122,81**
21,50	2	289	191	1	15A2150	**141,11**
22,00	2	289	191	1	15A2200	**142,65**
22,50	2	296	198	1	15A2250	**146,80**
23,00	2	296	198	1	15A2300	**139,91**
23,50	3	319	198	1	15A2350	**184,38**
24,00	3	327	206	1	15A2400	**181,57**
24,50	3	327	206	1	15A2450	**175,12**

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
25,00	3	327	206	1	15A2500	**184,82**
25,50	3	333	214	1	15A2550	**189,88**
26,00	3	333	214	1	15A2600	**206,82**
26,50	3	333	214	1	15A2650	**201,40**
27,00	3	343	222	1	15A2700	**207,77**
27,50	3	343	222	1	15A2750	**248,22**
28,00	3	343	222	1	15A2800	**241,79**
28,50	3	351	230	1	15A2850	**250,57**
29,00	3	351	230	1	15A2900	**243,77**
29,50	3	351	230	1	15A2950	**281,53**
30,00	3	351	230	1	15A3000	**274,72**
31,00	3	360	239	1	15A3100	**314,96**
32,00	4	397	248	1	15A3200	**326,57**
33,00	4	397	248	1	15A3300	**365,30**
34,00	4	406	257	1	15A3400	**450,55**
35,00	4	406	257	1	15A3500	**446,13**
36,00	4	416	267	1	15A3600	**516,74**
37,00	4	416	267	1	15A3700	**536,91**
38,00	4	426	277	1	15A3800	**575,02**
39,00	4	426	277	1	15A3900	**583,97**
40,00	4	426	277	1	15A4000	**631,78**

DIN 1870 N HSS-G SERIE EXTRALARGA

DIN 1870 N HSS-G EXTRALONG SERIE
DIN 1870 N HSS-G SERIE EXTRALONGUE



HSS-G | DIN 1870 N | 118° | 30°

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
10,00	1	285	185	1	15B1000	**143,10**
10,50	1	285	185	1	15B1050	**126,72**
11,00	1	300	195	1	15B1100	**158,40**
11,50	1	300	195	1	15B1150	**166,95**
12,00	1	310	205	1	15B1200	**176,68**
12,50	1	310	205	1	15B1250	**183,20**
13,00	1	310	205	1	15B1300	**183,20**
13,50	1	325	220	1	15B1350	**195,78**
14,00	1	325	220	1	15B1400	**204,64**
14,50	2	340	220	1	15B1450	**221,10**
15,00	2	340	220	1	15B1500	**228,97**
15,50	2	355	230	1	15B1550	**302,68**
16,00	2	355	230	1	15B1600	**299,11**
16,50	2	355	230	1	15B1650	**238,47**
17,00	2	355	230	1	15B1700	**268,45**
17,50	2	370	245	1	15B1750	**290,54**
18,00	2	370	245	1	15B1800	**303,58**
18,50	2	370	245	1	15B1850	**287,42**
19,00	2	370	245	1	15B1900	**300,06**
19,50	2	385	260	1	15B1950	**318,99**
20,00	2	385	260	1	15B2000	**361,54**

Ø (mm)	Cono Morse *Tapper Shank*	L1 (mm)	L2 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
20,50	2	385	260	1	15B2050	**395,89**
21,00	2	385	260	1	15B2100	**384,19**
21,50	2	405	270	1	15B2150	**420,16**
22,00	2	405	270	1	15B2200	**414,17**
22,50	2	405	270	1	15B2250	**472,13**
23,00	2	405	270	1	15B2300	**476,90**
23,50	3	425	270	1	15B2350	**518,84**
24,00	3	440	290	1	15B2400	**573,06**
24,50	3	440	290	1	15B2450	**678,63**
25,00	3	440	290	1	15B2500	**542,07**
25,50	3	440	290	1	15B2550	**765,66**
26,00	3	440	290	1	15B2600	**571,86**
26,50	3	440	290	1	15B2650	**765,66**
27,00	3	460	305	1	15B2700	**584,70**
27,50	3	460	305	1	15B2750	**809,04**
28,00	3	460	305	1	15B2800	**609,04**
28,50	3	460	305	1	15B2850	**858,96**
29,00	3	460	305	1	15B2900	**638,16**
29,50	3	460	305	1	15B2950	**688,32**
30,00	3	460	305	1	15B3000	**657,59**

BROCAS CILÍNDRICAS CORTAS

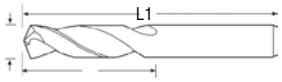
EXTRA SHORT STRAIGHT SHANK DRILL BITS • FORETS CYLINDRIQUES EXTRA COURTES

EXTRACORTA DIN 1897 N HSS-G

STUB SERIES DIN 1897 N HSS-G • EXTRA COURTE DIN 1897 N HSS-G



HSS-G | DIN 1897 N | 135°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	46	16	10	104300	**1,10**
3,25	49	18	10	104325	**1,18**
3,50	52	20	10	104350	**1,18**
3,75	52	20	10	104375	**1,30**
4,00	55	22	10	104400	**1,30**
4,25	55	22	10	104425	**1,55**
4,50	58	24	10	104450	**1,55**
4,75	58	24	10	104475	**1,74**
5,00	62	26	10	104500	**1,74**
5,25	62	26	10	104525	**1,91**
5,50	66	28	10	104550	**1,91**
5,75	66	28	10	104575	**2,18**
6,00	66	28	10	104600	**2,18**
6,25	66	28	10	104625	**2,62**
6,50	70	31	10	104650	**2,62**
6,75	74	34	10	104675	**3,04**
7,00	74	34	10	104700	**3,04**
7,25	74	34	10	104725	**3,43**

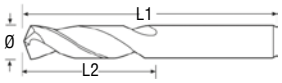
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
7,50	74	34	10	104750	**3,43**
7,75	79	37	10	104775	**3,77**
8,00	79	37	10	104800	**3,77**
8,25	79	37	10	104825	**4,50**
8,50	79	37	10	104850	**4,50**
8,75	84	40	10	104875	**4,88**
9,00	84	40	10	104900	**4,88**
9,50	84	40	10	104950	**5,48**
10,00	89	43	10	104101	**6,13**
10,50	89	43	5	104105	**6,90**
11,00	95	47	5	104110	**7,71**
11,50	95	47	5	104115	**8,56**
12,00	102	51	5	104120	**9,03**
12,50	102	51	5	104126	**11,01**
13,00	102	51	5	104130	**11,09**
14,00	107	54	1	104140	**19,28**
15,00	111	56	1	104155	**20,28**

EXTRACORTA DIN 1897 N HSS-CO

STUB SERIES DIN 1897 N HSS-CO • EXTRA COURTE DIN 1897 N HSS-CO



HSS-CO 5% | DIN 1897 N | 135°



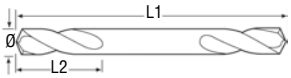
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	46	16	10	14E300	**2,19**
3,25	49	18	10	14E325	**2,24**
3,50	52	20	10	14E350	**2,36**
3,75	52	20	10	14E375	**2,78**
4,00	55	22	10	14E400	**2,62**
4,25	55	22	10	14E425	**2,88**
4,50	58	24	10	14E450	**3,00**
4,75	58	24	10	14E475	**3,21**
5,00	62	26	10	14E500	**3,40**
5,25	62	26	10	14E525	**3,58**
5,50	66	28	10	14E550	**3,58**
5,75	66	28	10	14E575	**4,30**
6,00	66	28	10	14E600	**4,08**
6,25	66	28	10	14E625	**6,22**
6,50	70	31	10	14E650	**4,85**
6,75	74	34	10	14E675	**7,79**
7,00	74	34	10	14E700	**5,60**
7,25	74	34	10	14E725	**8,26**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
7,50	74	34	10	14E750	**7,22**
7,75	79	37	10	14E775	**8,26**
8,00	79	37	10	14E800	**7,01**
8,25	79	37	10	14E825	**9,16**
8,50	79	37	10	14E850	**8,31**
8,75	84	40	10	14E875	**11,43**
9,00	84	40	10	14E900	**9,10**
9,25	84	40	10	14E925	**12,87**
9,50	84	40	10	14E950	**10,21**
9,75	89	43	10	14E975	**14,31**
10,00	89	43	10	14E100	**11,38**
10,50	89	43	5	14E105	**14,82**
11,00	95	47	5	14E110	**14,20**
11,50	95	47	5	14E115	**15,75**
12,00	102	51	5	14E120	**18,86**
12,50	102	51	5	14E125	**19,77**
13,00	102	51	5	14E130	**25,85**

EXTRACORTA DOBLE PUNTA DIN 1897 N HSS-G
STUB SERIES DOUBLE POINT DIN 1897 N HSS-G
EXTRA COURTE DOUBLE POINT DIN 1897 N HSS-G



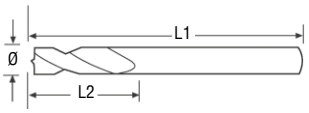
HSS-G | DIN 1897 N | 135°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	38	10	10	104D200	**2,52**
2,25	40	10	10	104D225	**2,89**
2,50	43	10	10	104D250	**2,51**
2,75	46	10	10	104D275	**3,00**
3,00	49	10	10	104D300	**2,21**
3,20	49	10	10	104D320	**2,21**
3,25	49	10	10	104D325	**2,21**
3,50	52	13	10	104D350	**2,45**
3,75	55	13	10	104D375	**2,70**
4,00	55	13	10	104D400	**2,51**
4,25	55	13	10	104D425	**2,70**
4,50	58	13	10	104D450	**2,80**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4,75	62	13	10	104D475	**4,52**
5,00	62	13	10	104D500	**3,20**
5,25	62	13	10	104D525	**4,52**
5,50	66	16	10	104D550	**3,87**
5,75	66	16	10	104D575	**5,33**
6,00	66	16	10	104D600	**4,32**
6,50	70	19	10	104D650	**4,78**
7,00	74	19	10	104D700	**5,69**
7,50	74	19	10	104D750	**5,82**
8,00	79	19	10	104D800	**6,97**
9,00	84	20	10	104D900	**9,30**
10,00	89	22	10	104D100	**10,04**

BROCA CILÍNDRICA PARA PUNTO DE SOLDADURA
STRAIGHT SHANK WELD POINT DRILL BITS
FORETS DEPOINTEUR QUEUE CYLINDRIQUE



ACERO 900 -1100 N/mm² | HSS-CO 5% | DIN 1897

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	66,00	28,00	1,00	TS0600	**12,05**
7,00	73,00	28,00	1,00	TS0700	**15,55**
8,00	79,00	37,00	1,00	TS0800	**12,82**
10,00	89,00	43,00	1,00	TS1000	**18,06**



ACERO 900 -1100 N/mm² | HSS-CO 5% | TIN | DIN 1897

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	66	28	1	TT0600	**21,94**
7,00	73	28	1	TT0700	**24,14**
8,00	79	37	1	TT0800	**25,06**



ACERO 1100 -1400 N/mm² | HSS-CO 5% | TIALN | DIN 1897

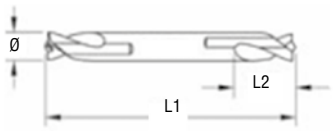
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	66	28	1	TF0600	**26,61**
7,00	73	28	1	TF0700	**34,06**
8,00	79	37	1	TF0800	**30,64**
10,00	89	43	1	TF1000	**37,69**



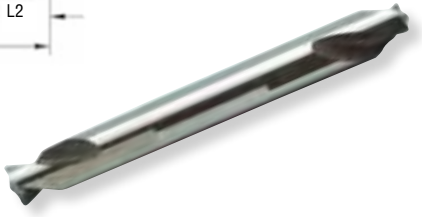
Recomendado para uso en aceros al Boro / *Recomended for Boron steel* / *Recommendé pour aciers au Bore*

BROCA PARA PUNTO DE SOLDADURA - DOBLE PUNTA
WELD POINT DRILL BITS - DOUBLE POINT
FORETS DEPOINTEUR - DOUBLE POINT

ACERO 900 -1100 N/mm² | HSS-CO 5%

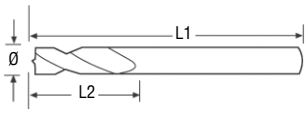


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	70,00	16,30	1,00	TSD0800	**32,79**



BROCA CON CHAVETERO PARA MÁQUINA NEUMÁTICA

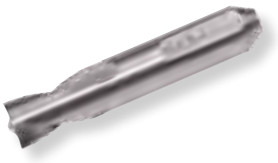
WELD POINT DRILL BITS PNEUMATIC TOOLS
FORETS DEPOINTEUR QUEUE CYLINDRIQUE MACHINES NEUMATIQUES



ACERO 900-1100 N/mm²

HSS-CO 5%



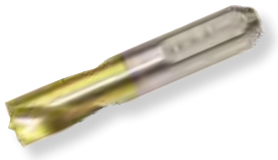


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	44,00	16,00	1,00	TSN600	**15,23**
8,00	44,00	18,00	1,00	TSN800	**19,13**

ACERO 900-1100 N/mm²

HSS-CO 5% | TIN





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	44,00	16,00	1,00	TTN600	**20,45**
8,00	44,00	18,00	1,00	TTN800	**24,44**

ACERO 1100-1400 N/mm²

HSS-CO 5% | TIALN





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	44,00	18,00	1,00	TFN800	**40,02**

Recomendado para uso en aceros al Boro / *Recomended for Boron steel* / *Recommendé pour aciers au Bore*

ESTUCHES DE BROCAS
DRILL BIT SETS • COFFRETS DE FORETS

SESA BOX





COLGADOR	HANGER	CINTRE
Herramienta siempre ordenada	*Tools always organized*	*Outils toujours bien organisés*



CALIDAD HERRAMIENTA	TOOL QUALITY	QUALITÉ DES OUTILS
Herramienta SESATOOLS, máximo rendimiento	*SESATOOLS drill bits, maximum performance*	*Outils SESA TOOLS, maximum rendement*



APERTURA	OPENING	OUVERTURE
Sistema de cierra, herramienta siempre bien guardada	*Closing system, well kept tools*	*Système de fermeture, outils toujours bien gardés*



ACCESO A LA HERRAMIENTA	ACCES TO THE TOOLS	ACCÉS AUX OUTILS
Bastidor móvil, acceso fácil y rápido a la herramienta	*Moving frame, fast and easy tool fitting*	*Chassis mobile, accès facile et rapide*



RESISTENCIA CAÍDAS	RESISTENCE TO THE FALLS	RÉSISTENCE AUX CHUTE
Plástico flexible y ultraresistente	*Ultra resistant and flexible plastic*	*Plastique flexible et ultrarésistant*

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS WHITE	HSS	+	BASIC		+	MADERA		5 - 6 - 8 mm	19CB339	15,98



19CB339

STANDARD BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS G	HSS-G	+	GRANITO		+	MADERA		5 - 6 - 8 mm	19CM339	22,08



19CM339

ADVANCE BOX (9 UDS. / *PCS.*)

Composición / *Contains* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS CO	HSS-CO 5%	+	TORNADO		+	MADERA		5 - 6 - 8 mm	19CA339	30,58



19CA339

ESTUCHE MODELO 314 - COMPOSICIÓN: 3-4-5-6-8 mm

SET MOD.: 314 - CONTAINS: 3-4-5-6-8 mm
COFFRET MOD.: 314 - COMPOSITION: 3-4-5-6-8 mm

DIN 338


1915314


155P314


194314


194P314


195P314


192314

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915314	**12,91**
HSS	WHITE *WHITE*	1	155P314	**10,31**
HSS-CO 5%		1	194314	**18,87**

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P314	**20,89**
INOX HSS-CO 5%		1	195P314	**27,77**
TIN		1	192314	**19,81**

ESTUCHE MODELO 333 - COMPOSICIÓN: 3-4-5-6-7-8-9-10 mm

SET MOD.: 333- CONTAINS: 3-4-5-6-7-8-9-10 mm
COFFRET MOD.: 333 - COMPOSITION: 3-4-5-6-7-8-9-10 mm

DIN 338


1915333


155P333


194333


194P333


195P333


192333

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915333	**26,66**
HSS	WHITE *WHITE*	1	155P333	**20,99**
HSS-CO 5%		1	194333	**41,13**

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P333	**42,92**
INOX HSS-CO 5%		1	195P333	**61,16**
TIN		1	192333	**42,85**

ESTUCHE CRT19 PLÁSTICO - COMPOSICIÓN: 19 PIEZAS, 1-10 x 0,5 mm

SET MOD.: CRT19 PLASTIC - 19 PIECES, 1-10 x 0,5 mm
COFFRET MOD.: CRT19 PLASTIQUE - 19 PIÈCES, 1-10 x 0,5 mm

DIN 338



1915019T | 194019T | 194P019T | 1935019T | 192119T

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915019T	**48,14**
HSS-CO 5%		1	194019T	**74,01**
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P019T	**88,26**

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
INOX HSS-CO 5%		1	1935019T	**133,45**
TIN		1	192119T	**85,46**
ESTUCHE VACÍO / *EMPTY SET*		1	19R2008	**18,95**

ESTUCHE DRT25 PLÁSTICO - COMPOSICIÓN: 25 PIEZAS, 1-13 x 0,5 mm

SET MOD.: DRT25 PLASTIC - 25 PIECES, 1-13 x 0,5 mm
COFFRET MOD.: DRT25 PLASTIQUE - 25 PIÈCES, 1-13 x 0,5 mm

DIN 338



1915025T | 194025T | 192025T | 1935025T | 194P025T

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915025T	**95,73**
HSS-CO 5%		1	194025T	**170,44**
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P025T	**194,89**

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
INOX HSS-CO 5%		1	1935025T	**243,74**
TIN		1	192025T	**130,63**
ESTUCHE VACÍO / *EMPTY SET*		1	19R2007	**22,26**

ESTUCHE CR19 METAL - COMPOSICIÓN: 19 PIEZAS, 1-10 x 0,5 mm

SET MOD.: CR19 METAL - 19 PIECES, 1-10 x 0,5 mm
COFFRET MOD.: CR19 MÉTAL - 19 PIÈCES, 1-10 x 0,5 mm

DIN 338



1915119 1935519 194019



194P019 1931019 192119

	Calidad / *Quality*	Uds. *Pcs.*	Cod.	€/Unid.
	HSS-G ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915119	**45,59**
	HSS WHITE *WHITE*	1	1935519	**36,47**
	HSS-CO 5%	1	194019	**71,90**
INOX	HSS-G *INOX PROGRESIVA PROGRESSIVE INOX*	1	194P019	**85,84**
INOX	HSS-CO 5%	1	1931019	**129,16**

Calidad / *Quality*	Uds. *Pcs.*	Cod.	€/Unid.
TIN	1	192119	**84,20**
HSS	1	1935119	**36,47**
HSS-R Basic	1	193119	**27,35**
ESTUCHE VACÍO / *EMPTY SET*	1	19CR19	**16,12**

ESTUCHE DR25 METAL - COMPOSICIÓN: 25 PIEZAS, 1-13 x 0,5 mm

SET MOD.: DR25 METAL - 25 PIECES, 1-13 x 0,5 mm
COFFRET MOD.: DR25 MÉTAL - 25 PIÈCES, 1-13 x 0,5 mm

DIN 338



1915025 1935525 194025



194P025 1931025 192025

	Calidad / *Quality*	Uds. *Pcs.*	Cod.	€/Unid.
	HSS-G ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915025	**94,80**
	HSS WHITE *WHITE*	1	1935525	**74,52**
	HSS-CO 5%	1	194025	**168,95**
INOX	HSS-G *INOX PROGRESIVA PROGRESSIVE INOX*	1	194P025	**189,37**
INOX	HSS-CO 5%	1	1931025	**240,69**

Calidad / *Quality*	Uds. *Pcs.*	Cod.	€/Unid.
TIN	1	192025	**128,50**
HSS	1	1935025	**74,52**
HSS-R Basic	1	193025	**62,44**
ESTUCHE VACÍO / *EMPTY SET*	1	19DR25	**20,17**

ESTUCHE FR37 METAL - COMPOSICIÓN: 37 PIEZAS, 1-10 x 0,25 mm

SET MOD.: FR37 METAL - 37 PIECES, 1-10 x 0,25 mm
COFFRET MOD.: FR37 METAL - 37 PIÈCES, 1-10 x 0,25 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915037	**118,86**
HSS-CO 5%		1	194037	**178,17**
TIN		1	192037	**203,16**

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P037	**187,22**
ESTUCHE VACÍO / *EMPTY SET*		1	19R037	**43,51**

ESTUCHE LR49 METAL - COMPOSICIÓN: 49 PIEZAS 1-13 x 0,25 mm

SET MOD.: LR49 METAL - 49 PIECES 1-13 x 0,25 mm
COFFRET MOD.: LR49 METAL - 49 PIÈCES 1-13 x 0,25 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915049	**217,64**
HSS-CO 5%		1	194049	**401,20**
TIN		1	192049	**421,88**

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	194P049	**421,22**
ESTUCHE VACÍO / *EMPTY SET*		1	19R049	**46,50**

ESTUCHE M.014 METAL - COMPOSICIÓN: 51 PIEZAS 1-6,0 x 0,1 mm

SET MOD.: M.014 METAL - 51 PIECES 1-6,0 x 0,1mm
COFFRET MOD.: M.014 METAL - 51 PIÈCES 1-6,0 x 0,1 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915014	**90,62**
HSS-CO 5%		1	194014	**142,54**

Calidad / *Quality*	Uds. *Pcs.*	Cod.	€/Unid.
ESTUCHE VACÍO / *EMPTY SET*	1	19R0014	**46,50**

ESTUCHE M.015 METAL - COMPOSICIÓN: 41 PIEZAS 6-10 x 0,1 mm

SET MOD.: M.015 METAL - 41 PIECES 6-10 x 0,1 mm
COFFRET MOD.: M.015 METAL - 41 PIÈCES 6-10 x 0,1mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	1915015	**228,86**
HSS-CO 5%		1	1940015	**373,62**

Calidad / *Quality*	Uds. *Pcs.*	Cod.	€/Unid.
ESTUCHE VACÍO / *EMPTY SET*	1	19R0015	**85,00**

ESTUCHE M.9965 PLÁSTICO - COMPOSICIÓN: 91 PIEZAS 1-10 x 0,1mm

SET MOD.: M.9965 METAL - 91 PIECES 1-10 x 0,1 mm
COFFRET MOD.: M.9965 METAL - 91 PIÈCES 1-10 x 0,1 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	19159965	**259,64**
HSS-CO 5%		1	1949965	**443,70**

Calidad / *Quality*	Uds. *Pcs.*	Cod.	€/Unid.
ESTUCHE VACÍO / *EMPTY SET*	1	19R9965	**59,76**

ESTUCHE M.880 PLÁSTICO - COMPOSICIÓN: 292 PIEZAS 1-10 x 0.5 mm

SET MOD.: M.880 METAL
292 PIECES 1-10 x 0,5 mm
COFFRET MOD.: M.880 METAL
292 PIÈCES 1-10 x 0,1 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	145R880	**479,08**
HSS	WHITE *WHITE*	1	155R880	**288,80**
HSS-CO 5%		1	14R880	**774,75**
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	14PR880	**806,39**

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
INOX HSS-CO 5%		1	193R880	**1511,92**
TIN		1	13R880	**874,53**
ESTUCHE VACÍO / *EMPTY SET*		1	19R880	**38,33**

Contenido / Contains / Contenu

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	20	3,50	20	6,00	20	8,50	8
1,50	20	4,00	15	6,50	15	9,00	8
2,00	20	4,50	15	7,00	15	9,50	8
2,50	20	5,00	15	7,50	15	10,00	8
3,00	20	5,50	15	8,00	15		

ESTUCHE M.881 METAL - COMPOSICIÓN: 774 PIEZAS 1-13 x 0,5 mm + 3,25 mm + 4,25 mm

SET MOD.: M.881 METAL
774 PIECES 1-13 x 0,5 mm + 3,25 mm + 4,25 mm
COFFRET MOD.: 881 METAL
774 PIÈCES 1-13 x 0,5mm + 3,25 mm + 4,25 mm



DIN 338

Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1	145R881	**1.565,65**
HSS	WHITE *WHITE*	1	155R881	**1.193,30**
HSS-CO 5%		1	14R881	**2.773,37**
INOX HSS-G	*INOX PROGRESIVA PROGRESSIVE INOX*	1	14PR881	**2.223,36**

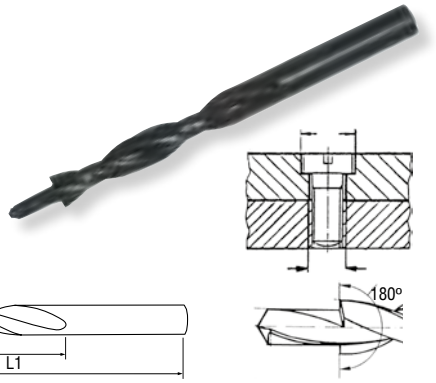
Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
INOX HSS-CO 5%		1	193R881	**4.566,17**
TIN		1	13R881	**2.868,74**
ESTUCHE VACÍO / *EMPTY SET*		1	19R881	**170,04**

Contenido / Contains / Contenu

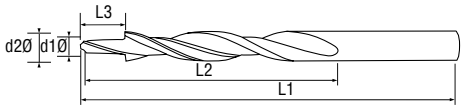
Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	50	4,00	50	7,00	20	10,50	10
1,50	50	4,25	50	7,50	20	11,00	10
2,00	50	4,50	40	8,00	20	11,50	10
2,50	50	5,00	40	8,50	10	12,00	8
3,00	50	5,50	30	9,00	10	12,50	8
3,25	50	6,00	30	9,50	10	13,00	8
3,50	50	6,50	30	10,00	10		

Hasta agotar existencias / *Until end of stock* / *Jusq'à épuisement des stocks*

BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 180º
SUBLAND DRILL BITS 180º • FORETS ÉTAGÉS Á VIS 180º

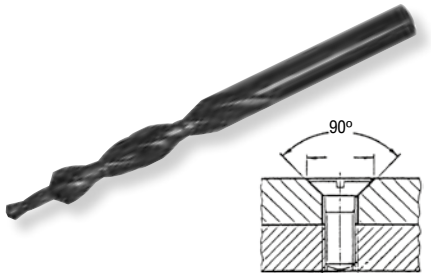


ACERO 400-800 N/mm² | F | HSS-G | DIN 8376 | 180º

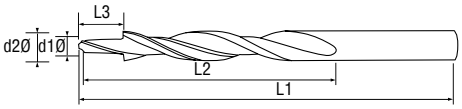


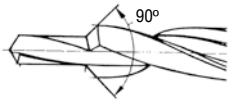
Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	d1 (mm)	d2 (mm)	Cod.	€/Unid.
M 3	93	57	9	3,4	6	16B0300	**74,85**
M 4	117	75	11	4,5	8	16B0400	**78,44**
M 5	133	87	13	5,5	10	16B0500	**94,16**
M 6	142	94	15	6,5	11	16B0600	**105,35**
M 8	169	114	19	9,0	15	16B0800	**129,36**
M 10	191	130	23	11,0	18	16B1000	**257,34**

BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 90º
SUBLAND DRILL BITS 90º • FORETS ÉTAGÉS Á VIS 90º



ACERO 400-800 N/mm² | F | HSS-G | DIN 8374 | 90º



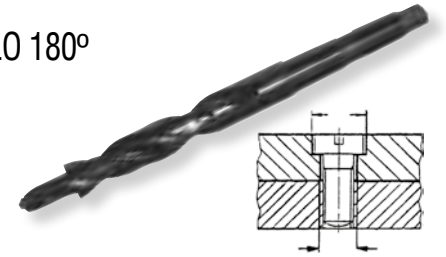


Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	d1 (mm)	d2 (mm)	Cod.	€/Unid.
M 3	93	57	9	3,2	6,0	16C0300	**87,35**
M 4	117	75	11	4,3	8,0	16C0400	**91,56**
M 5	133	87	13	5,3	10,0	16C0500	**108,94**
M 6	142	94	15	6,4	11,5	16C0600	**124,28**
M 8	169	114	19	8,4	15,0	16C0800	**170,24**
M 10	198	135	23	10,5	19,0	16C1000	**262,48**

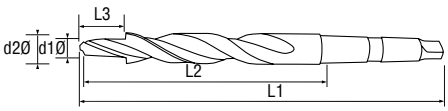
BROCA BIDIAMETRAL MANGO CÓNICO PARA ASIENTOS DE TORNILLO 180º

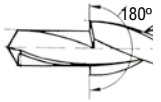
TAPPER SHANK SUBLAND DRILL BITS 180º

FORETS ÉTAGÉS Á VIS 180º QUEUE CONIQUE



ACERO 400-800 N/mm² | F | HSS-G | DIN 8377 | 180º



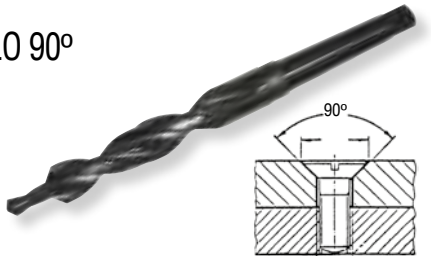


Ø (mm)	L1	L2	L3	d1	d2	Cono Morse / *Tapper Shank*	Cod.	€/Unid.
M 8	212	114	19	9,0	15	2	16D0800	**189,48**
M 10	228	130	23	11,0	18	2	16D1000	**213,97**
M 12	238	140	27	13,5	20	2	16D1200	**239,47**
M 14	281	160	31	15,5	24	3	16D1400	**340,24**
M 16	286	165	35	17,5	26	3	16D1600	**485,00**
M 18	296	175	39	20,0	30	3	16D1800	**539,99**
M 20	334	185	43	22,0	33	4	16D2000	**608,72**

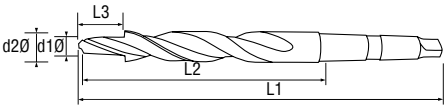
BROCA BIDIAMETRAL MANGO CÓNICO PARA ASIENTOS DE TORNILLO 90º

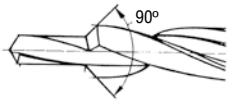
TAPPER SHANK SUBLAND DRILL BITS 90º

FORETS ÉTAGÉS Á VIS 90º QUEUE CONIQUE



ACERO 400-800 N/mm² | F | HSS-G | DIN 8375 | 90º



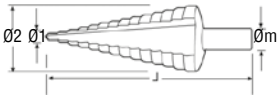


Ø (mm)	L1	L2	L3	d1	d2	Cono Morse / *Tapper Shank*	Cod.	€/Unid.
M 5	175	94	13	5,5	11,0	1	16E0500	**183,11**
M 6	182	101	15	6,6	13,0	1	16E0600	**186,88**
M 8	228	130	19	9,0	17,2	2	16E0800	**222,70**
M 10	248	150	23	11,0	21,5	2	16E1000	**263,84**

BROCAS ESCALONADAS RECTAS
STEP DRILL-BITS • FRAISES ÉTAGÉES



ACERO 400-800 N/mm² | HSS-G | 118°

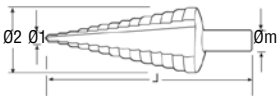


Ø 1 (mm)	L1 (mm)	Ø Mango / *Ø Shank* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4 a 12 / 1	66	6	1	109401	**32,19**
4 a 20 / 2	75	8	1	109402	**50,04**
4 a 30 / 2	101	10	1	109403	**75,55**
6 a 38 / 2	101	10	1	109632	**155,11**

BROCAS ESCALONADAS CANAL HELICOIDAL
SPIRAL STEP DRILL-BITS • FRAISES ÉTAGÉES SPIRAL



ACERO 400-800 N/mm² | HSS-G | 118° | 35°



Ø 1 a Ø 2 (mm)	L1 (mm)	Ø Mango / *Ø Shank* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4-12	65	6	1	110401	**46,13**
4-20	75	8	1	110402	**75,76**
4-30	100	10	1	110403	**110,14**
6-38	100	10	1	110632	**166,86**

ESTUCHE DE BROCAS ESCALONADAS
STEP DRILL BITS SET
COFFRETS FRAISES ETAGÉES



Medidas / *Sizes*
4 a 12 / 1 - 4 a 20 / 2 - 4 a 30 / 2 mm

Tipo / Type	Uds. *Pcs.*	Cod.	€/Unid.
RECTA *STEP*	3	109169	**176,47**



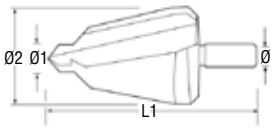
Medidas / *Sizes*
4 a 12 / 1 - 4 a 20 / 2 - 4 a 30 / 2 mm

Tipo / Type	Uds. *Pcs.*	Cod.	€/Unid.
HELICOIDAL 35º *SPIRAL STEP*	3	109170	**246,07**

BROCAS CÓNICA PARA TUBO Y CHAPA
SHEET METAL DRILL-BITS • FORETS CONIQUES



HSS-G



Ø 1 a Ø 2 (mm)	L1 (mm)	Ø Mango / *Ø Shank* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3 a 14,0	58	6	1	108031	**21,60**
8 a 20,0	73	8	1	108062	**29,23**
16 a 30,5	77	9	1	108163	**55,30**
26 a 40,0	87	10	1	108264	**112,20**

ESTUCHE BROCA CÓNICA PARA TUBO Y CHAPA
SHEET DRIL BITS SET
COFFRET FORETS CONIQUES



Medidas / *Sizes*
3 a 14 - 8 a 20 - 16 a 30,5 - 26 a 40 mm

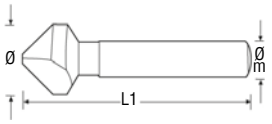
Uds. / *Pcs.*	Cod.	€/Unid.
4	108199	**176,58**

Hasta agotar existencias / *Until end of stock*
Jusqu´à épuisement des stocks

AVELLANADOR HSS-G 90º
90º HSS-G COUNTERSINK CUTTERS • FRAISES CONIQUE 90º HSS-G



ACERO 400-800 N/mm² | HSS-G | DIN 335C | 3Z | 90º



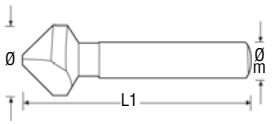
Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
4,30	44	4	1	T04344	**12,87**
6,30	45	5	1	T06344	**11,15**
8,30	50	6	1	T08350	**13,31**
10,40	50	6	1	T10454	**15,47**
12,40	54	8	1	T12454	**17,07**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
16,50	60	10	1	T16560	**23,47**
20,50	63	10	1	T20563	**34,55**
25,00	66	10	1	T25066	**43,56**
31,00	72	12	1	T31071	**69,74**

AVELLANADOR HSS-CO 90º
90º HSS-CO COUNTERSINK CUTTERS • FRAISES CONIQUE 90º HSS-CO



ACERO 900-1100 N/mm² | HSS-CO 5% | DIN 335C | 3Z | 90º



Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
4,30	40	4	1	3AE0430	**22,54**
6,30	45	5	1	3AE0630	**14,46**
8,30	50	6	1	3AE0830	**20,48**
10,40	50	6	1	3AE1040	**23,92**
12,40	56	8	1	3AE1250	**25,99**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
16,50	60	10	1	3AE1650	**34,95**
20,50	63	10	1	3AE2050	**52,15**
25,00	67	10	1	3AE2500	**67,99**
31,00	71	12	1	3AE3100	**109,64**
40,00	80	15	1	3AE4000	**123,28**

ESTUCHE AVELLANADORES 90º
90º COUNTERSINKS SETS • COFFRETS FRAISES À CHANFREINER 90º



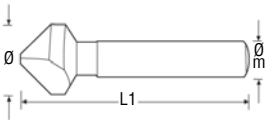
Medidas / *Sizes*
6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm

Calidad *Quality*	Uds. *Pcs.*	Cod.	€/Unid.
HSS-G	6	T40757	**144,95**
HSS-CO 5%	6	T40757C	**194,78**

AVELLANADOR HSS-G 90º MANGO CÓNICO
90º TAPER SHANK HSS-G COUNTERSINK CUTTERS
FRAISE CONIQUE QUEUE CONIQUE 90º HSS-G



HSS-G | DIN 335D | 3Z | 90º



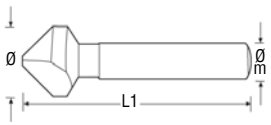
Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds, *Pcs,*	Cod,	€/Unid.
16,50	85	12,065 (CM 1)	1	3AM1650	**90,03**
20,50	100	17,780 (CM 2)	1	3AM2050	**106,78**
25,00	106	17,780 (CM 2)	1	3AM2500	**107,77**
31,00	112	17,780 (CM 2)	1	3AM3100	**119,88**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds, *Pcs,*	Cod,	€/Unid.
40,00	140	23,825 (CM 3)	1	3AM4000	**182,89**
50,00	150	23,825 (CM 3)	1	3AM5000	**223,01**
63,00	180	31,267 (CM 4)	1	3AM6300	**332,44**
80,00	190	31,267 (CM 4)	1	3AM8000	**573,20**

AVELLANADOR HSS-G 60º
60º HSS-G COUNTERSINK CUTTERS
FRAISES CONIQUE 60º HSS-G



HSS-G | DIN 334C | 3Z | 60°



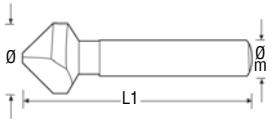
Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds, *Pcs,*	Cod,	€/Unid.
6,30	45	5	1	3AS0630	**20,03**
8,30	50	6	1	3AS0800	**21,75**
10,00	53	6	1	3AS1000	**23,36**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds, *Pcs,*	Cod,	€/Unid.
12,50	56	8	1	3AS1250	**25,32**
16,00	63	10	1	3AS1600	**33,02**
20,50	67	10	1	3AS2050	**41,84**

AVELLANADORES HSS-G 90º HEXAGONAL
90º HSS-G HEXAGONAL COUNTERSINK
FRAISE CONIQUE 90º HSS-G HEXAGONALE







ACERO 900-1100 N/mm² | HSS-G | 1/4 | 90º

Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,30	31	1	3R67306	**17,53**
8,30	31	1	3R67308	**17,53**
10,40	34	1	3R67310	**18,88**
12,40	35	1	3R67312	**19,87**
16,50	40	1	3R67316	**22,30**
20,50	41	1	3R67320	**25,26**

MANGO SILICONA ENTRADA HEXAGONAL
SILICONE HEXAGONAL SHANK HOLDER, INLET 1/4"
MANCHE À SILICONE, ENTRÉE 1/4"

Uds. / *Pcs.*	Cod.	€/Unid.
1	NZBD14	**19,23**

CJTO. AVELLANANADORES C/ADAPTADOR Y MANGO
COUNTERSINKS SETS
COFFRET FRAISES
À CHANFREINER

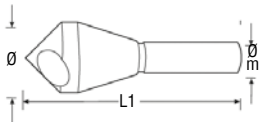


Medidas / *Sizes*
6,3 - 8,3 - 10,4 - 12,4, 16,5 - 20,5 mm

Uds. / *Pcs.*	Cod.	€/Unid.
8	3R67423	**82,58**

AVELLANADOR 90º HSS-G CON AGUJERO
90º HSS-G COUNTERSINK CUTTERS WITH HOLE
FRAISES À TROU ET À CHANFREINER 90º HSS-G





ACERO 400-800 N/mm² | AL | HSS-G | 90º

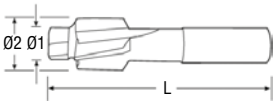
Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
2-5	45	6	1	T50001	**17,51**
5-10	48	8	1	T50002	**19,13**
10-15	65	10	1	T50003	**39,16**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
15-20	85	12	1	T50004	**67,95**
20-25	100	15	1	T50005	**139,57**

AVELLANADOR HSS-G PARA ASIENTO DE TORNILLOS “ALLEN”
FLAT COUNTERSINK • FRAISES À LAMER



HSS-G | DIN 373

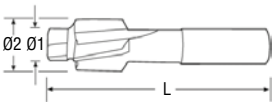


Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	3,2	6,0	1	TAAM03	**22,90**
4,00	4,3	8,0	1	TAAM04	**22,90**
5,00	5,3	10,0	1	TAAM05	**23,90**
6,00	6,4	11,0	1	TAAM06	**25,16**
8,00	8,4	15,0	1	TAAM08	**41,59**
10,00	10,5	18,0	1	TAAM10	**51,34**
12,00	13,0	20,0	1	TAAM12	**53,55**
14,00	15,0	24,0	1	TAAM14	**99,18**
16,00	17,0	26,0	1	TAAM16	**110,16**

AVELLANADOR HSS-G PARA ASIENTO DE TORNILLOS “ALLEN”
FLAT COUNTERSINK • FRAISES À LAMER



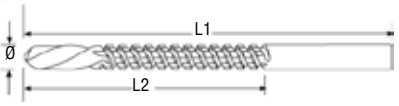
HSS-G | DIN 375



Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Cono Morse / *Tapper Shank*	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	8,4	15,0	2	1	TABM08	**84,43**
10,00	10,5	18,0	2	1	TABM10	**86,88**
12,00	13,0	20,0	2	1	TABM12	**91,63**
14,00	15,0	24,0	2	1	TABM14	**107,15**
16,00	17,0	26,0	3	1	TABM16	**120,03**
18,00	19,0	30,0	3	1	TABM18	**151,41**
20,00	21,0	33,0	3	1	TABM20	**167,08**
22,00	23,0	36,0	3	1	TABM22	**191,50**
24,00	25,0	40,0	3	1	TABM24	**218,24**

BROCA FRESA *CUTTING DRILL BITS • FORETS FRAISEUR*





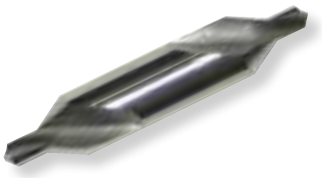
ACERO 900-1100 N/mm²

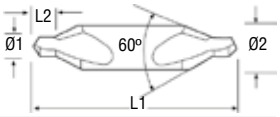
HSS-G | TIN

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	90	60	1	1360600	**21,81**
8,00	90	60	1	1360800	**25,37**

BROCAS DE CENTRAR
CENTER DRILLS • FORETS À CENTRER

BROCA HSS DE CENTRAR 60º
HSS 60º CENTER DRILLS • FORETS À CENTRER HSS 60º





ACERO 400-800 N/mm²

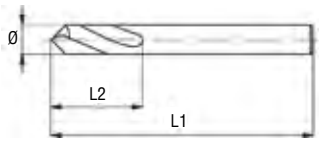
HSS-G

Ø 1 (mm)	Ø 2 (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	3,15	31,5	1,6	1	106100	**6,65**
1,25	3,15	33,5	1,9	1	106125	**6,65**
1,60	4,00	37,5	2,4	1	106160	**6,65**
2,00	5,00	42,0	2,9	1	106200	**7,09**
2,50	6,30	47,0	3,6	1	106250	**7,84**
3,15	8,00	52,0	4,4	1	106315	**8,65**
4,00	10,00	59,0	5,6	1	106400	**11,29**
5,00	12,50	66,0	6,9	1	106500	**18,95**
6,30	16,00	74,0	8,6	1	106630	**30,41**
10,00	25,00	100,0	31,5	1	106102	**82,42**
12,50	31,50	125,0	33,5	1	1061250	**196,72**

BROCA DE PUNTEAR 90º
90º NC SPOTTING DRILLS • FORETS À CENTRER 90º

NEW





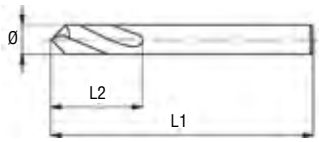
ACERO 1100 - 1400 N/mm² | INOX | F | HSS-CO 5% | 90°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	46,00	12,00	1	11590030	**10,77**
4,00	55,00	12,00	1	11590040	**4,42**
5,00	62,00	14,00	1	11590050	**5,30**
6,00	66,00	16,00	1	11590060	**5,48**
8,00	79,00	21,00	1	11590080	**7,08**
10,00	89,00	25,00	1	11590100	**9,02**
12,00	102,00	30,00	1	11590120	**12,17**
14,00	107,00	34,00	1	11590140	**17,71**
16,00	115,00	38,00	1	11590160	**30,54**

BROCA DE PUNTEAR 120º
120º NC SPOTTING DRILLS • FORETS À CENTRER 120º

NEW





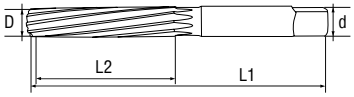
ACERO 1100 - 1400 N/mm² | INOX | F | HSS-CO 5% | 120°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	46,00	12,00	1	115128030	**10,77**
4,00	55,00	12,00	1	115128040	**4,42**
5,00	62,00	14,00	1	115128050	**5,30**
6,00	66,00	16,00	1	115128060	**5,48**
8,00	79,00	21,00	1	115128080	**7,08**
10,00	89,00	25,00	1	115128100	**9,02**
12,00	102,00	30,00	1	115128120	**12,17**
14,00	107,00	34,00	1	115128140	**17,71**
16,00	115,00	38,00	1	115128160	**30,54**

ESCARIADOR HELICOIDAL DE MANO
HAND REAMER • ALÉSOIR À MAIN



ACERO 400-800 N/mm² | HSS-G | DIN 206 B | TOL 7H | 8°



D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	3,00	62	31	4	1	N10300	**26,09**
3,50	3,50	71	35	4	1	N10350	**26,09**
4,00	4,00	76	38	6	1	N10400	**26,09**
4,50	4,50	81	41	6	1	N10450	**28,88**
5,00	5,00	87	44	6	1	N10500	**29,73**
5,50	5,50	93	47	6	1	N10550	**29,90**
6,00	6,00	93	47	6	1	N10600	**29,90**
6,50	6,50	107	54	6	1	N10650	**29,90**
7,00	7,00	107	54	6	1	N10700	**29,90**
7,50	7,50	115	58	6	1	N10750	**31,55**
8,00	8,00	115	58	6	1	N10800	**31,55**
8,50	8,50	124	62	6	1	N10850	**31,55**
9,00	9,00	124	62	6	1	N10900	**31,55**
9,50	9,50	133	66	6	1	N10950	**34,50**
10,00	10,00	133	66	6	1	N11000	**34,50**
10,50	10,50	142	71	6	1	N11050	**39,54**
11,00	11,00	142	71	6	1	N11100	**39,54**
11,50	11,50	152	76	6	1	N11150	**40,94**
12,00	12,00	152	76	6	1	N11200	**40,94**
12,50	12,50	152	76	6	1	N11250	**54,28**
13,00	13,00	152	76	6	1	N11300	**54,28**
13,50	13,50	163	81	8	1	N11350	**57,97**
14,00	14,00	163	81	8	1	N11400	**57,97**
14,50	14,50	163	81	8	1	N11450	**59,36**
15,00	15,00	163	81	8	1	N11500	**63,34**
15,50	15,50	175	87	8	1	N11550	**69,58**
16,00	16,00	175	87	8	1	N11600	**69,58**
16,50	16,50	175	87	8	1	N11650	**72,51**
17,00	17,00	175	87	8	1	N11700	**72,51**
17,50	17,50	188	93	8	1	N11750	**78,40**
18,00	18,00	188	93	8	1	N11800	**78,40**
18,50	18,50	188	93	8	1	N11850	**98,58**
19,00	19,00	188	93	8	1	N11900	**98,58**
20,00	20,00	201	100	8	1	N12000	**100,95**
21,00	21,00	215	107	8	1	N12100	**113,30**
22,00	22,00	215	107	8	1	N12200	**118,85**
23,00	23,00	231	115	8	1	N12300	**124,32**
24,00	24,00	231	115	8	1	N12400	**152,37**
25,00	25,00	231	115	10	1	N12500	**164,38**
26,00	26,00	231	115	10	1	N12600	**169,93**
27,00	27,00	247	124	10	1	N12700	**177,30**
28,00	28,00	247	124	10	1	N12800	**188,10**
29,00	29,00	247	124	10	1	N12900	**193,47**
30,00	30,00	265	133	10	1	N13000	**194,17**
32,00	32,00	265	133	10	1	N13200	**243,93**

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

ESCARIADOR HELICOIDAL CÓNICO DE MANO - CONICIDAD 2:100

TAPPER SHANK REAMER - 2 IN 100 TAPPER

ALÉSOIR CONIQUE À MAIN - CONICITÉ 2:100

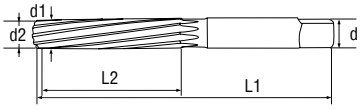


ACERO 300-800 N/mm²

HSS-G

DIN 9 B

8°



D Ø NOMINAL (mm)	d1 Ø (mm)	d2 Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	1,90	2,86	68	48	4	1	N20200	**53,25**
2,50	2,40	3,36	68	48	4	1	N20250	**54,21**
3,00	2,90	4,06	80	58	4	1	N20300	**55,32**
4,00	3,90	5,26	93	68	4	1	N20400	**46,49**
5,00	4,90	6,36	100	73	4	1	N20500	**47,24**
6,00	5,90	8,00	135	105	6	1	N20600	**57,59**
8,00	7,90	10,80	180	145	6	1	N20800	**88,57**
10,00	9,90	13,40	215	175	6	1	N21000	**109,25**
12,00	11,80	16,00	255	210	8	1	N21200	**149,11**
13,00	12,80	17,00	255	210	8	1	N21300	**168,92**
14,00	13,80	18,00	255	210	8	1	N21400	**231,48**
16,00	15,80	20,40	280	230	8	1	N21600	**228,13**
20,00	19,80	24,80	310	250	8	1	N22000	**317,50**

Consultar medidas no tarifadas y disponibilidad en tipo A / ***Request measurements not listed and availability in type A*** / ***Consulter les mesures non tarifaires et la disponibilité dans le type A***

ESCARIADOR HELICOIDAL DE MÁQUINA
MACHINE REAMER • ALÉSOIR MACHINE



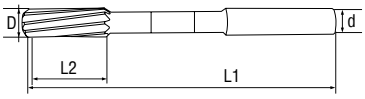
ACERO 900 -1100 N/mm²

HSS-CO 5%

DIN 212 D

TOL 7H

8°



D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	3,00	61	15	6	1	N70300	**32,88**
3,50	3,50	70	18	6	1	N70350	**32,88**
4,00	4,00	75	19	6	1	N70400	**32,25**
4,50	4,50	80	21	6	1	N70450	**36,46**
5,00	5,00	86	23	6	1	N70500	**35,75**
5,50	5,60	93	26	6	1	N70550	**37,44**
6,00	5,60	93	26	6	1	N70600	**36,72**
7,00	7,10	109	31	6	1	N70700	**38,27**
8,00	8,00	117	33	6	1	N70800	**41,59**
9,00	9,00	125	36	6	1	N70900	**47,05**
10,00	10,00	133	38	6	1	N71000	**50,66**
11,00	10,00	142	41	6	1	N71100	**54,03**
12,00	10,00	151	44	6	1	N71200	**56,94**
13,00	10,00	151	44	6	1	N71300	**73,46**
14,00	12,50	160	47	8	1	N71400	**75,50**
15,00	12,50	162	50	8	1	N71500	**79,50**
16,00	12,50	170	52	8	1	N71600	**80,15**

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

ESCARIADOR HELICOIDAL DE MÁQUINA TIPO “GAMMON”
“GAMMON TYPE” MACHINE REAMER
ALÉSOIR MACHINE TIPE “GAMMON”



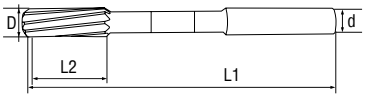
ACERO 900-1100 N/mm²

HSS-CO 5%

DIN 212 E

TOL 7H

45°



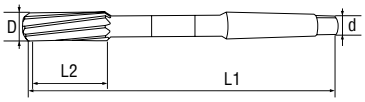
D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	3,00	61	15	4	1	N80300	**37,76**
3,50	3,50	70	18	4	1	N80350	**40,79**
4,00	4,00	75	19	4	1	N80400	**35,91**
4,50	4,50	80	21	4	1	N80450	**41,48**
5,00	5,00	86	23	4	1	N80500	**40,24**
5,50	5,60	93	26	4	1	N80550	**41,42**
6,00	5,60	93	26	4	1	N80600	**40,49**
7,00	7,10	109	31	4	1	N80700	**42,16**
8,00	8,00	117	33	4	1	N80800	**42,59**
9,00	9,00	125	36	4	1	N80900	**45,38**
10,00	10,00	133	38	4	1	N81000	**47,37**
11,00	10,00	142	41	4	1	N81100	**59,44**
12,00	10,00	151	44	4	1	N81200	**62,03**
13,00	10,00	151	44	4	1	N81300	**79,43**
14,00	12,50	160	47	4	1	N81400	**85,57**
15,00	12,50	162	50	4	1	N81500	**92,25**
16,00	12,50	170	52	6	1	N81600	**100,29**
17,00	14,00	175	54	6	1	N81700	**141,15**
18,00	14,00	182	56	6	1	N81800	**158,49**
19,00	16,00	189	58	6	1	N81900	**152,92**
20,00	16,00	195	60	6	1	N82000	**146,11**

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

ESCARIADOR HELICOIDAL DE MÁQUINA ANCLAJE CÓNICO
TAPPER SHANK MACHINE REAMER
ALÉSOIR MACHINE QUEUE CONIQUE



ACERO 900 - 1100 N/mm² | HSS-CO 5% | DIN 208 B | TOL 7H | 8°



D Ø (mm)	Cono Morse / *Tapper Shank*	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
5,00	1	133	23	4	1	N30500	**52,58**
6,00	1	138	26	4	1	N30600	**44,33**
7,00	1	150	31	4	1	N30700	**47,47**
8,00	1	156	33	4	1	N30800	**46,41**
9,00	1	162	36	4	1	N30900	**51,82**
10,00	1	168	38	4	1	N31000	**48,62**
11,00	1	175	41	4	1	N31100	**52,31**
12,00	1	182	44	4	1	N31200	**49,93**
13,00	1	182	44	4	1	N31300	**57,96**
14,00	1	189	47	4	1	N31400	**64,22**
15,00	2	204	50	4	1	N31500	**69,46**
16,00	2	210	52	6	1	N31600	**72,15**
17,00	2	214	54	6	1	N31700	**84,44**
18,00	2	219	56	6	1	N31800	**89,89**
19,00	2	223	58	6	1	N31900	**93,84**
20,00	2	228	60	6	1	N32000	**92,48**
21,00	2	232	62	6	1	N32100	**107,05**
22,00	2	237	64	6	1	N32200	**104,06**
23,00	2	241	66	6	1	N32300	**128,71**
24,00	3	268	68	6	1	N32400	**121,90**
25,00	3	268	68	6	1	N32500	**140,22**
26,00	3	273	70	6	1	N32600	**174,07**
27,00	3	277	71	6	1	N32700	**200,36**
28,00	3	277	71	6	1	N32800	**174,21**
29,00	3	281	73	6	1	N32900	**191,51**
30,00	3	281	73	6	1	N33000	**181,42**

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

ESCARIADOR HELICOIDAL DE MÁQUINA “GAMMON” ANCLAJE CÓNICO

TAPPER SHANK “GAMMON TYPE” MACHINE REAMER

ALÉSOIR MACHINE TIPE “GAMMON” QUEUE CONIQUE



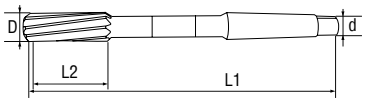
ACERO 800 - 1100 N/mm²

HSS-CO 5%

DIN 208 C

TOL 7H

45°



D Ø (mm)	Cono Morse / *Tapper Shank*	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
5,00	1	133	23	4	1	N40500	**87,62**
6,00	1	138	26	4	1	N40600	**92,61**
7,00	1	150	31	4	1	N40700	**100,43**
8,00	1	156	33	4	1	N40800	**100,43**
9,00	1	162	36	4	1	N40900	**100,43**
10,00	1	168	38	4	1	N41000	**83,24**
11,00	1	175	41	4	1	N41100	**94,01**
12,00	1	182	44	4	1	N41200	**89,67**
13,00	1	182	44	4	1	N41300	**117,86**
14,00	1	189	47	4	1	N41400	**117,86**
15,00	2	204	50	4	1	N41500	**128,54**
16,00	2	210	52	6	1	N41600	**128,54**
17,00	2	214	54	6	1	N41700	**138,14**
18,00	2	219	56	6	1	N41800	**139,84**
19,00	2	223	58	6	1	N41900	**155,24**
20,00	2	228	60	6	1	N42000	**144,10**
21,00	2	232	62	6	1	N42100	**176,76**
22,00	2	237	64	6	1	N42200	**178,61**
23,00	2	241	66	6	1	N42300	**204,31**
24,00	3	268	68	6	1	N42400	**207,48**
25,00	3	268	68	6	1	N42500	**212,19**
26,00	3	273	70	6	1	N42600	**218,24**
27,00	3	277	71	6	1	N42700	**255,70**
28,00	3	277	71	6	1	N42800	**252,36**
29,00	3	281	73	6	1	N42900	**284,01**
30,00	3	281	73	6	1	N43000	**273,96**
32,00	4	317	77	8	1	N43200	**366,83**

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

ESCARIADOR EXTENSIBLE CON GUÍA DE AJUSTE RÁPIDO
EXTENDABLE REAMERS • ALÉSOIR EXTENSIBLE



ACERO 400-800 N/mm²

HSS-G

S./859

Ø MIN. (mm)	Ø MAX. (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	**9,00**	175	36	5	1	N508009	**135,82**
9,00	**10,00**	185	36	5	1	N509010	**135,82**
10,00	**11,00**	200	40	5	1	N510011	**135,82**
11,00	**12,00**	210	42	5	1	N511012	**135,82**
12,00	**13,50**	220	43	5	1	N5121350	**138,52**
13,50	**15,50**	245	52	5	1	N513515	**144,03**
15,50	**18,00**	275	61	5	1	N515518	**149,40**
18,00	**21,00**	300	66	5	1	N518021	**160,40**
21,00	**24,00**	320	70	5	1	N521024	**173,92**
24,00	**27,50**	350	78	5	1	N524275	**195,18**
27,50	**31,50**	380	83	6	1	N527531	**227,07**
31,50	**37,00**	430	97	6	1	N531537	**305,63**
37,00	**45,00**	500	108	6	1	N537045	**425,52**
45,00	**55,00**	600	126	6	1	N545055	**612,60**
55,00	**67,00**	750	151	6	1	N555067	**990,52**
67,00	**80,00**	830	167	10	1	N567080	**1415,09**

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

SET ESCARIADORES EXTENSIBLES
EXTENDABLE REAMERS SET • COFFRET ALÉSOIR EXTENSIBLE

Ref.	Medidas / *Sizes*	Uds. / *Pcs.*	Cod.	€/Unid.
184	De 8 a 31,5 mm	11	N500184	**1.874,99**

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*



ESCARIADOR EXTENSIBLE REFORZADO DE AJUSTE RÁPIDO
REINFORCED EXTENDABLE REAMERS
ALÉSOIR EXTENSIBLE RENFORCÉ



ACERO 400-800 N/mm²

HSS-G

S./859

Ø MIN. (mm)	Ø MAX. (mm)	L1 (mm)	L2 (mm)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
8,00	**9,00**	115	36	5	1	N608009	**101,76**
9,00	**10,00**	115	36	5	1	N609010	**101,76**
10,00	**11,00**	115	42	5	1	N610011	**101,76**
11,00	**12,00**	135	44	5	1	N611012	**101,76**
12,00	**13,50**	135	45	5	1	N612135	**102,71**
13,50	**15,50**	145	48	5	1	N613515	**102,71**
15,50	**18,00**	170	61	5	1	N615518	**115,27**
18,00	**21,00**	180	66	5	1	N618021	**119,15**
21,00	**24,00**	195	70	5	1	N621024	**138,14**
24,00	**27,50**	218	78	5	1	N624275	**153,25**
27,50	**31,50**	245	83	6	1	N627531	**164,41**
31,50	**37,00**	280	97	6	1	N631537	**213,70**
37,00	**45,00**	325	108	6	1	N637045	**319,94**
45,00	**55,00**	385	126	6	1	N645055	**469,65**
55,00	**67,00**	450	151	8	1	N655067	**854,38**
67,00	**80,00**	545	182	10	1	N667080	**1.311,73**

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

CONJUNTO DE ESCARIADORES EXTENSIBLES TIPO REFORZADO
REINFORCED EXTENDABLE REAMERS SET
COFFRET ALÉSOIR EXTENSIBLE REFORCÉS



Ref.	Medidas / *Sizes*	Uds. / *Pcs.*	Cod.	€/Unid.
187	De 12 a 26,98 mm	8	N600187	**832,22**
189	De 10 a 45,00 mm	11	N600189	**1.776,05**

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

RECOMENDACIONES TÉCNICAS
TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES



INOX · ACERO 800-1100 N/mm² · F · LT · AL · PL · HSS-CO 8% · 4-6 TPI

TABLA DE VELOCIDADES RECOMENDADAS / *RECOMENDED SPEED / VITESSES RECOMMANDÉES*

Ø (mm)	ACERO 400-800 N/mm² Acero / *Steel*	ACERO 800-1100 N/mm² Acero / *Steel*	F Fundición / *Cast Iron*	LT Latón / *Brass*	AL Aluminio / *Aluminium*
14	580	300	400	790	790
16	550	275	365	730	730
17	500	250	330	665	665
19	460	230	300	600	600
20	435	240	290	570	570
21	425	210	280	560	560
22	390	195	260	520	520
24	370	185	245	495	495
25	350	175	235	470	470
27	325	160	215	435	435
29	300	150	200	400	400
30	285	145	190	380	380
32	275	140	180	360	360
33	260	135	175	345	345
35	250	125	165	330	330
37	240	120	160	315	315
38	230	115	150	300	300
40	220	110	145	290	290
41	210	105	140	280	280
43	205	100	135	270	270
44	195	95	130	260	260
46	190	95	125	250	250
48	180	90	120	240	240
51	170	85	115	230	230
52	165	80	110	220	220
54	160	80	105	210	210
57	150	75	100	200	200
59	145	75	100	195	195
60	140	70	95	190	190
64	135	65	90	180	180
65	130	65	85	175	175
67	130	65	85	170	170
70	125	60	80	160	160
73	120	60	80	160	160
76	115	55	75	150	150
79	110	55	70	140	140
83	105	50	70	140	140
86	100	50	65	130	130
89	95	45	65	130	130
92	95	45	60	120	120
95	90	45	60	120	120
98	90	45	60	120	120
102	85	40	55	110	110
105	80	40	55	110	110
108	80	40	55	110	110
111	80	40	50	100	100
114	75	35	50	100	100
121	70	35	45	90	90
127	65	30	45	90	90
133	65	30	45	85	85
140	60	25	40	85	85
146	60	25	40	85	85
152	55	25	35	75	75

CORONAS BIMETAL M42
BIMETAL HOLE SAWS M42 • SCIES TRÉPAN BIMETAL M42



INOX · ACERO 900 -1100 N/mm² · F · LT · AL · PL · HSS-CO 8% · 4-6 TPI

Ø (mm)	Profundidad de Corte *Depth of the Cut* (mm)	Equivalencia P.G. *Equivalence P.G.*	Uds. / *Pcs.*	Cod.	€/Unid.
14	32	7	1	UC20014	**11,94**
16	32	9	1	UC20016	**11,94**
17	32	-	1	UC20017	**11,94**
19	32	11	1	UC20019	**11,94**
20	32	-	1	UC20020	**11,94**
21	32	13,5	1	UC20021	**11,94**
22	32	-	1	UC20022	**11,94**
24	32	16	1	UC20024	**12,29**
25	32	-	1	UC20025	**12,29**
27	32	-	1	UC20027	**13,07**
29	32	21	1	UC20029	**13,07**
30	32	-	1	UC20030	**13,62**
32	32	-	1	UC20032	**13,62**
33	32	-	1	UC20033	**13,62**
35	32	-	1	UC20035	**14,48**
37	32	-	1	UC20037	**14,48**
38	32	29	1	UC20038	**14,48**
40	32	-	1	UC20040	**14,48**
41	32	-	1	UC20041	**14,48**
43	32	-	1	UC20043	**14,48**
44	32	-	1	UC20044	**17,41**
46	32	-	1	UC20046	**17,41**
48	32	36	1	UC20048	**17,95**
50	32	-	1	UC20050	**17,95**
51	32	-	1	UC20051	**17,95**
52	32	-	1	UC20052	**20,00**
54	32	42	1	UC20054	**20,00**
56	32	-	1	UC20056	**20,00**
57	32	-	1	UC20057	**20,00**
59	32	-	1	UC20059	**20,55**
60	32	48	1	UC20060	**20,55**
63	32	-	1	UC20063	**20,55**
64	32	-	1	UC20064	**21,27**
65	32	-	1	UC20065	**22,02**
67	32	-	1	UC20067	**22,75**
68	32	-	1	UC20068	**23,11**
70	32	-	1	UC20070	**23,11**
73	32	-	1	UC20073	**23,11**
76	32	-	1	UC20076	**23,63**
79	32	-	1	UC20079	**23,63**
83	32	-	1	UC20083	**23,63**
86	32	-	1	UC20086	**23,63**
89	32	-	1	UC20089	**23,63**
92	32	-	1	UC20092	**27,24**

CORONAS BIMETAL M42

BIMETAL HOLE SAWS M42 • SCIES TRÉPAN BIMETAL M42



INOX · ACERO 900 -1100 N/mm² · F · LT · AL · PL

HSS-CO 8% · 4-6 TPI

Ø (mm)	Profundidad de Corte *Depth of the Cut* (mm)	Equivalencia P.G. *Equivalence P.G.*	Uds. / *Pcs.*	Cod.	€/Unid.
95,00	32	-	1	UC20095	**31,07**
98,00	32	-	1	UC20098	**33,33**
102,00	32	-	1	UC20102	**35,10**
105,00	32	-	1	UC20105	**38,15**
108,00	32	-	1	UC20108	**42,56**
111,00	32	-	1	UC20111	**46,84**
114,00	32	-	1	UC20114	**50,00**
121,00	32	-	1	UC20121	**53,42**
127,00	32	-	1	UC20127	**56,26**
140,00	32	-	1	UC20140	**62,60**
146,00	32	-	1	UC20146	**69,82**
152,00	32	-	1	UC20152	**76,51**
160,00	32	-	1	UC20160	**94,73**
168,00	32	-	1	UC20168	**109,30**
178,00	32	-	1	UC20178	**127,52**
200,00	32	-	1	UC20200	**145,74**
210,00	32	-	1	UC20210	**163,96**

ACEITE DE CORTE Y ROSCADO

CUTTING AND TAPPING FLUID
FLUIDE POUR FILETAGE ET DE COUP

Contenido / *Content*	Uds.	Cod	€/Unid.
400 ml	1	1AC4000	**18,19**



Metales duros y blandos. Alto poder refirgerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrision capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.

HUSILLOS PARA CORONAS BIMETAL
ARBORS FOR BIMETAL HOLE SAWS
ARBRES POUR SCIES TRÉPAN BIMETAL



Tipo Amarre *Shank*	Para Coronas *For Hole Saws* (mm)	Rosca del Husillo *Arbor Thread*	Uds. *Pcs.*	Cod.	€/Unid.
CILÍNDRICA / *STRAIGHT*	14 a 30	1/2 x 20h UNF	1	UH20A0N	**8,51**



Tipo Amarre *Shank* (mm)	Para Coronas *For Hole Saws* (mm)	Rosca del Husillo *Arbor Thread*	Uds. *Pcs.*	Cod.	€/Unid.
HEXAGONAL 11,00	14 a 30	1/2 x 20h UNF	1	UH200A1	**12,38**
HEXAGONAL 9,50	14 a 30	1/2 x 20h UNF	1	UH200A0	**12,38**
HEXAGONAL 11,00	32 a 210	5/8 x 18h UNF	1	UH20A2T	**22,33**
HEXAGONAL 9,50	32 a 210	5/8 x 18h UNF	1	UH20A3T	**22,33**



Tipo Amarre *Shank*	Para Coronas *For Hole Saws* (mm)	Rosca del Husillo *Arbor Thread*	Uds. *Pcs.*	Cod.	€/Unid.
SDS-PLUS	14 a 30	1/2 x 20h UNF	1	UH20A1N	**15,31**
SDS-PLUS	32 a 210	5/8 x 18h UNF	1	UH200A4	**25,51**

BROCAS PILOTO Y MUELLE EXPULSOR UNIVERSAL
CENTER DRILL & SPRING EJECTORS
FORET CENTRAGE ET RESSORT À EXPULSER



Tipo Amarre / *Shank* (mm)	Para husillos / *For Arbors*	Uds. / *Pcs.*	Cod.	€/Unid.
6,35 x 105*	A0N	1	UB1014C	**4,40**
6,35 x 85	A0-A1-A2T-A3-A1N-A4	1	UB1014B	**4,40**
MUELLE EXPULSOR UNIVERSAL *SPRING EJECTOR*		1	UM0000	**1,90**

* Las brocas piloto de 6,35 x 105 tambien se recomiendan para taladrado de difícil acceso. / **** 6.35 x 105 pilot bits are also recommended for drilling in difficult to access locations*** / **** Les forets pilote de 6,35 x 105 sont aussi recommandés pour le perçage à des endroits d'accès difficile***

ALARGADORES PARA HUSILLOS 330 MM
EXTENSION 330 MM • EXTENSION 330 MM



Husillo / *Arbor*	Para husillos / *For Arbors*	Uds. / *Pcs.*	Cod.	€/Unid.
HEXAGONAL 11,00 mm	A1 - A2T	1	UL00330	**17,69**
HEXAGONAL 9,50 mm	A0 - A3T	1	UL00331	**17,69**
SDS-PLUS	A1 - A2T	1	UL00332	**22,13**
SDS-PLUS	A0 - A3T	1	UL00333	**22,13**

CONJUNTOS DE CORONAS BIMETÁLICAS
HOLE SAWS SETS
COFFRETS SCIES TRÉPANS



ACERO 400-800 N/mm² · F · AL · PL · HSS-CO 8% · 4-6 TPI

		Contenido / *Contains* / *Contenu*			
Cod.	**Modelo** / *Model* / *Modéle*	**Coronas** *Hole Saws* / *Scies Trépans*	**Diámetros** / *Diameters* *Diametres* **(mm)**	**Husillos** *Arbors* / *Arbres*	**€/Unid.**
UT20EK2A	ELECTRICISTA PG. *ELECTRICIAN PG.* *ÉLECTRICITÉ PG.*	6	16 - 21 - 24 - 29 - 38 - 48 **PG.** 9 - 3,5 - 16 - 21 - 29 - 36	A1 + A2T	**168,47**
UT20EK4	ELECTRICISTA- 3 *ELECTRICIAN -3* *ÉLECTRICITÉ-3*	6	22 - 29 - 35 - 38 - 44 - 51	A1 + A2T	**177,11**
UT20EK5	ELECTRICISTA- 4 *ELECTRICIAN-4* *ÉLECTRICITÉ-4*	6	19 - 21 - 24 - 29 - 38 - 48	A1 + A2T	**168,47**
UT20EK5A	ELECTRICISTA- 5 *ELECTRICIAN-5* *ÉLECTRICITÉ-5*	6	19 - 21 - 25 - 30 - 37 - 46	A1 + A2T	**168,47**
UT20EK5B	ELECTRICISTA-6 *ELECTRICIAN-6* *ÉLECTRICITÉ-6*	6	17 - 21 - 24 - 29 - 35 - 46	A1 + A2T	**167,84**
UT20EK6	FONTANERÍA- 1 *PLUMBING-1* *PLOMBERIE-1*	6	19 - 22 - 29 - 38 - 44 - 51	A1 + A2T	**174,26**
UT20EK7	FONTANERÍA- 2 *PLUMBING-2* *PLOMBERIE-2*	6	22 - 25 - 33 - 35 - 41 - 51	A1 + A2T	**171,98**
UT20EK8	REFRIGERACIÓN *COOLING* *RÉFRIGÉRATION*	6	16 - 22 - 29 - 35 - 41 - 52	A1 + A2T	**173,26**
UT20EK9	CERRAJERÍA *HARDWARE* *SERRURERIE*	6	22 - 25 - 32 - 38 - 44 - 52	A1 + A2T	**177,60**
UT20EK10	INSTALACIÓN AUTOMÓVIL *VEHICLE INSTALLATION* *INSTALLATION AUTOMIBILE*	6	19 - 22 - 32 - 38 - 44 - 52	A1 + A2T	**177,21**
UT20EK11	BÁSICO *BASIC* *BASIQUE*	6	22 - 29 - 33 - 38 - 43 - 51	A1 + A2T	**172,88**

CONJUNTOS DE CORONAS BIMETÁLICAS
HOLE SAWS SETS
COFFRETS SCIES TRÉPANS



HSS-CO 8% | 4-6 TPI

Cod.	Modelo / *Model* / *Modéle*	Contenido / *Contains* / *Contenu* — Coronas *Hole Saws* / *Scies Trépans*	Diámetros / *Diameters* / *Diametres* (mm)	Husillos *Arbors* / *Arbres*	€/Unid.
UT20EK0	MANTENIMIENTO INDUSTRIAL *INDUSTRIAL MAINTENANCE* *MAINTENANCE INDUISTRIELLE*	11	21 - 25 - 27 - 33 - 37 - 38 - 44 - 51 60 - 65 - 73	A1 + A2T + PROLONGADOR *EXTENSION* *EXTENSION*	**302,97**
UT20EK1	UNIVERSAL *UNIVERSAL* *UNIVERSALE*	11	19 - 22 - 25 - 29 - 35 - 38 44 - 51 57 - 64 - 70	A1 + A2T	**302,53**
UT20EK2	ELECTRICISTA PG. *ELECTRICIAN PG.* *ÉLECTRICITÉ PG.*	10	14 - 16 - 19 - 21 - 24 - 29 - 38 - 48 - 54 - 60 **PG.** 7 - 11 -13,5 - 16 - 21 - 29 - 36 - 42 - 48	A1 + A2T	**254,60**
UT20EK3	ELECTRICISTA-2. *ELECTRICIAN-2.* *ÉLECTRICITÉ-2*	10	16 - 19 - 21 - 24 - 29 - 38 43 - 48 - 60 - 65	A 1+ A2T	**259,32**
UT20EK12	CARPINTERÍA *CARPENTRY* *MENUISERIE*	11	14 - 16 - 19 - 22 - 24 - 25 - 30 - 35 40 - 51 - 59	A1 + A2T + PROLONGADOR *EXTENSION* *EXTENSION*	**277,03**

CONJUNTOS DE CORONAS BIMETÁLICAS
MALETÍN ALUMINIO
HOLE SAWS SETS - ALUMINIUM CASE
COFFRETS SCIES TRÉPANS - COFFRET ALUMINIUM





HSS-CO 8% | 4-6 TPI

Cod.	Modelo / *Model* / *Modéle*	Contenido / *Contains* / *Contenu* — Coronas *Hole Saws* / *Scies Trépans*	Diámetros / *Diameters* / *Diametres* (mm)	Husillos *Arbors* / *Arbres*	€/Unid.
UT20EK13	ALUMINIO - MANTENIMIENTO INDUSTRIAL *ALUMINIUM - INDUSTRIAL MAINTENANCE* *ALUMINIUM - MAINTENANCE INDUISTRIELLE*	11	21 - 25 - 27 - 33 - 37 - 38 - 44 - 51 60 - 65 - 73	A1 + A2T	**324,18**
UT20EK14	ALUMINIO - UNIVERSAL *ALUMINIUM - UNIVERSAL* *ALUMINIUM - UNIVERSALE*	11	19 - 22 - 25 - 29 - 35 - 38 44 - 51 57 - 64 - 70	A1 + A2T	**323,71**
UT20EK15	ALUMINIO - ELECTRICISTA PG. *ALUMINIUM - ELECTRICIAN PG.* *ALUMINIUM - ÉLECTRICITÉ PG.*	10	14 - 16 - 19 - 21 - 24 - 29 - 38 - 48 - 54 - 60 PG. 7 - 11 -13,5 - 16 - 21 - 29 - 36 - 42 - 48	A1 + A2T	**272,42**
UT20EK16	ALUMINIO - ELECTRICISTA -2 *ALUMINIUM - ELECTRICIAN -2* *ALUMINIUM - ÉLECTRICITÉ- 2*	10	16 - 19 - 21 - 24 - 29 - 38 43 - 48 - 60 - 65	A1 + A2T	**277,48**
UT20EK17	ALUMINIO - CARPINTERÍA *ALUMINIUM - CARPENTRY* *ALUMINIUM - MENUISERIE*	11	14 - 16 - 19 - 22 - 24 - 25 - 30 - 35 40 - 51 - 59	A1 + A2T	**296,43**

PERFORADORES DE CHAPA
CIRCULAR PUNCHES • EMPORTE PIÈCES



ACERO 400-800 N/mm² · INOX

CAPACIDAD DE CORTE: 2 mm en chapa de acero; 1,5 mm en chapa inox.
CUTTING LENGTH: 2 mm on steel sheet; 1,5 mm on Stainless steel
PROFONDEUR DE COUPAGE: 2 mm en plaque d´acier; 1,5 mm en plaque d´INOX

Ø (mm)	Tornillo / *Screw*	Uds. / *Pcs.*	advance MAXIMO RENDIMIENTO Cod.	€/Unid.	Basic Cod.	€/Unid.
12,7 (1/2")		1	P0013	60,96	PS013	35,65
14,00		1	P0014	60,96	PS014	35,65
15,00		1	P0015	60,96	PS015	35,65
16 (5/8")	M 8	1	P0016	60,96	PS016	35,65
17,00		1	P0017	66,62	-	-
18,00		1	P0018	66,62	PS018	38,44
19 (3/4")		1	P0019	66,62	PS019	38,44
20,00		1	P0020	76,42	PS020	40,40
21,00		1	P0021	76,42	-	-
22 (7/8")		1	P0022	76,42	PS022	44,13
23,00	M 10	1	P0023	89,59	-	-
24,00		1	P0024	89,59	-	-
25 (1")		1	P0025	89,59	PS025	48,88
26,00		1	P0026	89,59	-	-
27,00		1	P0027	89,59	-	-
28 (1.3/32")		1	P0028	105,23	PS028	54,53
29,00		1	P0029	105,23	-	-
30,00		1	P0030	105,23	PS030	54,53
31,00		1	P0031	105,23	-	-
32 (1.1/4")		1	P0032	105,23	PS032	54,53
33,00	M 12	1	P0033	116,32	-	-
34 (1.11/32")		1	P0034	116,32	PS034	61,93
35,00		1	P0035	116,32	PS035	61,93
36,00		1	P0036	116,32	-	-
37,00		1	P0037	116,32	PS037	61,93
38 (1.1/2")		1	P0038	116,32	PS038	61,93
39,00		1	P0039	116,32	-	-
40,00		1	P0040	128,84	PS040	85,16
41,00		1	P0041	128,84	-	-
42,00		1	P0042	140,53	-	-
43,00		1	P0043	140,53	-	-
44,00		1	P0044	140,53	-	-
45,00		1	P0045	140,53	PS045	101,24
46,00	M 14	1	P0046	140,53	-	-
47,00		1	P0047	151,57	PS047	115,57
48,00		1	P0048	151,57	-	-
49,00		1	P0049	151,57	-	-
50,00		1	P0050	151,57	PS050	117,13
51 (2")		1	P0051	159,51	-	-
52,00		1	P0052	159,51	PS052	114,20
55,00		1	P0055	277,69	PS055	137,72
60 (2.3/8")		1	P0060	333,45	PS060	155,30
63,00		1	P0063	377,90	PS063	175,96
65,00		1	P0065	390,42	-	-
70,00		1	P0070	419,65	-	-
72,00		1	P0072	430,09	-	-
75,00		1	P0075	446,80	-	-
80,00	M 20	1	P0080	455,15	-	-
85,00		1	P0085	471,85	-	-
90,00		1	P0090	485,01	-	-
95,00		1	P0095	511,73	-	-
100,00		1	P0100	578,33	-	-
105,00		1	P0105	615,91	-	-
110,00		1	P0110	668,11	-	-
115,00		1	P0115	701,51	-	-

TORNILLOS DE REPUESTO
SPARE CREWS • VIS DE REMPLACEMENT



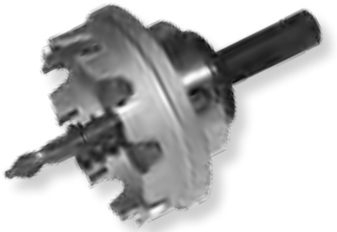
Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
M 8 x 125	1	PT001	**10,74**
M 10 x 125	1	PT002	**14,03**
M 12 x 150	1	PT003	**15,78**
M 14 x 150	1	PT004	**23,67**
M 20 x 150	1	PT005	**49,33**

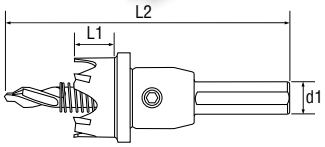
JUEGOS PERFORADORES
CIRCULAR PUNCHES SETS • COFFRETS EMPORTE PIECES



Ø	Tornillo *Screw*	advance MAXIMO RENDIMIENTO Cod.	€/Unid.	Basic Cod.	€/Unid.
18 - 22 - 25 - 32 mm		PJ003	**335,12**	PSJ001	**183,12**
15 - 20 - 22 - 28 mm		PJ006	**316,33**	PSJ002	**172,50**
5/8" - 3/4" - 1" - 1/4"		PJ007	**323,43**	PSJ003	**176,35**
1/2" - 3/4" - 1" - 1/4"		PJ008	**323,43**	PSJ004	**176,35**

CORONAS CON DIENTE METAL DURO SERIE CORTA
TUNGSTEN CARBIDE TIPED HOLE SAWS SHORT SERIES
SCIES TRÉPANS AU CARBURE DE TUNGSTENE SERIE COURTE





ACERO 800 -1100 N/mm² | INOX | MD | 1/4

Ø (mm)	Z	D1 (mm)	L1 (mm)	L2 (mm)	Espesor máximo de corte *Max. Cutting Thickness* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
16,00	4	10	12	65	04	1	UI00016	**52,85**
18,00	4	10	12	65	04	1	UI00018	**52,85**
20,00	5	10	12	65	04	1	UI00020	**54,73**
22,00	5	10	12	65	04	1	UI00022	**56,86**
23,00	5	10	12	65	04	1	UI00023	**57,58**
25,00	5	10	12	65	04	1	UI00025	**57,58**
30,00	5	10	12	65	04	1	UI00030	**62,15**
32,00	6	10	12	65	04	1	UI00032	**66,82**
33,00	7	10	12	65	04	1	UI00033	**70,59**
35,00	7	10	12	65	04	1	UI00035	**72,65**
40,00	7	10	12	65	04	1	UI00040	**85,10**
50,00	9	10	12	65	04	1	UI00050	**99,68**
60,00	10	13	12	65	04	1	UI00060	**130,73**
63,00	11	13	12	65	04	1	UI00063	**132,06**
65,00	11	13	12	65	04	1	UI00065	**134,26**

Junto con la corona se incluye el husillo y la broca centradora / ***The spindle and central bit come together with the core bit*** / *La couronne est accompagnée de la broche et du foret de centrage*

BROCA PILOTO / *PILOT DRILL* / *FORET DE CENTRAGE*

Tipo Broca / *Drill Bit Type*	Uds. / *Pcs.*	Cod.	€/Unid.
Para Corona Serie Corta *For short series*	1	UIB0660	**5,28**

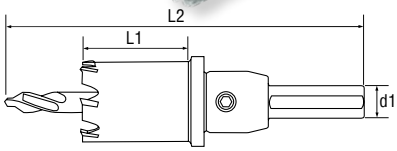
TABLA DE VELOCIDADES RECOMENDADAS / *RECOMENDED SPEED* / *VITESSES RECOMMANDÉES*

VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) *CUTTING SPEED* / *VITESSE DE COUP*			
Ø (mm)	INOX Inox	ACERO 400-800 N/mm² Acero / *Steel*	F Fundición / *Cast Iron*
20,00	400	600	800
30,00	280	400	550
40,00	200	300	400
50,00	160	250	320
60,00	130	200	260
80,00	100	150	200
100,00	80	120	160

Coronas reomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / ***Recomended maximum cutting depth of 4 mm, for stainless steel 2 mm*** / *Profondeur de coupage maximum recomendée 4 mm, pour INOX 2 mm*

CORONAS CON DIENTE METAL DURO SERIE LARGA
TUNGSTEN CARBIDE TIPED HOLE SAWS LONG SERIES
SCIES TRÉPANS AU CARBURE DE TUNGSTENE SERIE LONGUE





ACERO 800-1100 N/mm² | INOX | MD | 1/4

Ø (mm)	Z	D1 (mm)	L1 (mm)	L2 (mm)	Espesor máximo de corte *Max. Cutting Thickness* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
20,00	5	10	35	90	04	1	UIL0020	**84,75**
22,00	5	10	35	90	04	1	UIL0022	**86,60**
23,00	5	10	35	90	04	1	UIL0023	**87,13**
25,00	6	10	35	90	04	1	UIL0025	**79,55**
30,00	6	10	35	90	04	1	UIL0030	**94,51**
32,00	8	10	35	90	04	1	UIL0032	**110,85**
33,00	8	10	35	90	04	1	UIL0033	**111,11**
35,00	8	10	35	90	04	1	UIL0035	**111,38**
40,00	10	10	35	90	04	1	UIL0040	**125,22**
45,00	10	10	35	90	04	1	UIL0045	**146,70**
50,00	12	10	35	90	04	1	UIL0050	**163,71**
54,00	12	13	35	90	04	1	UIL0054	**185,20**
60,00	14	13	60	90	04	1	UIL0060	**223,55**
65,00	14	13	60	90	04	1	UIL0065	**267,58**

Junto con la corona se incluye el husillo y la broca centradora / ***The spindle and central bit come together with the core bit*** / *La couronne est accompagnée de la broche et du foret de centrage*

BROCA PILOTO / *PILOT DRILL* / *FORET DE CENTRAGE*

Tipo Broca / *Drill Bit Type*	Uds. / *Pcs.*	Cod.	€/Unid.
Para Corona Serie Larga (Ø 20 a Ø 30) *For long series*	1	UILB680	**8,60**
Para Corona Serie Larga (Ø 32 a Ø 54) *For long series*	1	UILB880	**10,91**
Para Corona Serie Larga (Ø 60 a Ø 65) *For long series*	1	UILB8100	**12,40**

TABLA DE VELOCIDADES RECOMENDADAS / *RECOMENDED SPEED* / *VITESSES RECOMMANDÉES*

VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) *CUTTING SPEED / VITESSE DE COUP*			
Ø (mm)	INOX Inox	ACERO 400-800 N/mm² Acero / *Steel*	F Fundición / *Cast Iron*
20,00	400	600	800
30,00	280	400	550
40,00	200	300	400
50,00	160	250	320
60,00	130	200	260
80,00	100	150	200
100,00	80	120	160

Coronas reomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / ***Recomended maximum cutting depth of 4 mm, for stainless steel 2 mm*** / *Profondeur de coupage maximum recomendée 4 mm, pour INOX 2 mm*

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-CO



ACERO 800 -1100 N/mm² · INOX · HSS-CO 5% · WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12,00	30	19	1	1907012030	**42,99**
13,00	30	19	1	1907013030	**43,18**
14,00	30	19	1	1907014030	**43,31**
15,00	30	19	1	1907015030	**50,24**
16,00	30	19	1	1907016030	**52,09**
17,00	30	19	1	1907017030	**53,87**
18,00	30	19	1	1907018030	**54,95**
19,00	30	19	1	1907019030	**58,64**
20,00	30	19	1	1907020030	**61,37**
21,00	30	19	1	1907021030	**65,06**
22,00	30	19	1	1907022030	**66,14**
23,00	30	19	1	1907023030	**68,62**
24,00	30	19	1	1907024030	**72,06**
25,00	30	19	1	1907025030	**75,56**
26,00	30	19	1	1907026030	**76,51**
27,00	30	19	1	1907027030	**80,20**
28,00	30	19	1	1907028030	**82,11**
29,00	30	19	1	1907029030	**85,73**
30,00	30	19	1	1907030030	**87,07**
31,00	30	19	1	1907031030	**96,16**
32,00	30	19	1	1907032030	**102,96**
35,00	30	19	1	1907035030	**127,20**
40,00	30	19	1	1907040030	**149,20**
45,00	30	19	1	1907045030	**168,12**
50,00	30	19	1	1907050030	**188,30**
52,00	30	19	1	1907052030	**196,30**
55,00	30	19	1	1907055030	**205,30**
60,00	30	19	1	1907060030	**222,12**

PUNZON EXPULSOR / ***PUNCHER*** / ***POINÇON***



Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,35	77	1	1926500	**23,85**

ESTUCHE DE CORONAS PARA MAQUINAS CON BASE ELECTROMÁGNETICA HSS-CO
NEW
HSS-CO ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-CO



Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.	€/Unid.
12x30, 14x30, 16x30, 18x30, 20x30, 22x30, punzón expulsor 6.35x77	7	19CW01	**344,70**

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-CO



ACERO 900-1100 N/mm² · INOX · HSS-CO 5% · WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12,00	50	19	1	1907012050	**58,13**
13,00	50	19	1	1907013050	**58,32**
14,00	50	19	1	1907014050	**58,63**
15,00	50	19	1	1907015050	**69,41**
16,00	50	19	1	1907016050	**74,80**
17,00	50	19	1	1907017050	**80,25**
18,00	50	19	1	1907018050	**82,77**
19,00	50	19	1	1907019050	**89,01**
20,00	50	19	1	1907020050	**89,32**
21,00	50	19	1	1907021050	**96,98**
22,00	50	19	1	1907022050	**98,14**
23,00	50	19	1	1907023050	**99,55**
24,00	50	19	1	1907024050	**102,73**
25,00	50	19	1	1907025050	**109,05**
26,00	50	19	1	1907026050	**109,23**
27,00	50	19	1	1907027050	**115,79**
28,00	50	19	1	1907028050	**119,15**
29,00	50	19	1	1907029050	**125,70**
30,00	50	19	1	1907030050	**132,32**
31,00	50	19	1	1907031050	**138,94**
32,00	50	19	1	1907032050	**147,46**
35,00	50	19	1	1907035050	**165,89**
36,00	50	19	1	1907036050	**170,57**
40,00	50	19	1	1907040050	**187,22**
45,00	50	19	1	1907045050	**212,94**
50,00	50	19	1	1907050050	**236,57**
52,00	50	19	1	1907052050	**245,83**
55,00	50	19	1	1907055050	**260,19**
60,00	50	19	1	1907060050	**284,03**

PUNZON EXPULSOR / ***PUNCHER*** / ***POINÇON***

Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,35	102	1	1950500	**26,46**



ESTUCHE DE CORONAS PARA MAQUINAS CON BASE ELECTROMÁGNETICA HSS-CO
NEW
HSS-CO ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-CO



Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.	€/Unid.
12x50, 14x50, 16x50, 18x50, 20x50, 22x50, punzón expulsor 6.35x102	7	19CW02	**488,24**

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD
HM ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES MD



ACERO 1100 -1400 N/mm² · INOX · AL · CU · F · MD · WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
18,00	35	19	1	2003018035	**152,31**
19,00	35	19	1	2003019035	**152,87**
20,00	35	19	1	2003020035	**153,25**
21,00	35	19	1	2003021035	**153,37**
22,00	35	19	1	2003022035	**155,84**
23,00	35	19	1	2003023035	**155,90**
24,00	35	19	1	2003024035	**156,03**
25,00	35	19	1	2003025035	**159,81**
26,00	35	19	1	2003026035	**160,49**
27,00	35	19	1	2003027035	**160,61**
28,00	35	19	1	2003028035	**161,04**
29,00	35	19	1	2003029035	**161,30**
30,00	35	19	1	2003030035	**163,46**
31,00	35	19	1	2003031035	**164,14**
32,00	35	19	1	2003032035	**164,38**
33,00	35	19	1	2003033035	**164,45**
34,00	35	19	1	2003034035	**164,64**
35,00	35	19	1	2003035035	**177,33**

PUNZON EXPULSOR / *PUNCHER* / *POINÇON*



Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8	87	1	2001500	**26,71**

ESTUCHE DE CORONAS PARA MAQUINAS CON BASE ELECTROMÁGNETICA MD NEW
MD ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES MD



Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.	€/Unid.
18x35, 20x35, 22x35, 24x35, 26x35, 28x35, punzón expulsor 8x87	7	19CW03	**965,67**

PORTAFRESAS CONO MORSE / *MORSE TAPER* / *QUEUE CONIQUE*



Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
C.M. 2 + accesorios / *C.M. 2 + accessories*	1	18003	**343,24**
C.M. 3 + accesorios / *C.M. 2 + accessories*	1	18025	**343,24**

Portafresas con entrada para refrigerante para máquinas con base electromagnética SIN AMARRES WELDON. Permite el uso de estas fresas en tornos, fresadoras y taladros. / ***Tool holders with internal cooling system for electromagnetic drilling machines without WELDON SHANK. It allows the use of WELDON SHANK milling cutters on lathes, milling machines and drill machines.*** / *Porte-fraises à réfrigération interne pour machines à base électromagnétique SANS ANCRAGE WELDON. Pour l'utilisation de fraises à ancrage Weldon sur des tours, fraiseuses ou perceuses.*

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD
HM ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES MD



ACERO 1100 - 1400 N/mm² · INOX · AL · CU · F · MD · WELDON 19,00

Ø (mm)	Profundidad de Corte *Depth of the cut* (mm)	Ø Mango / *Shank* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
18,00	50	19	1	2003018050	**168,23**
19,00	50	19	1	2003019050	**168,94**
20,00	50	19	1	2003020050	**169,12**
21,00	50	19	1	2003021050	**169,45**
22,00	50	19	1	2003022050	**173,37**
23,00	50	19	1	2003023050	**173,43**
24,00	50	19	1	2003024050	**174,65**
25,00	50	19	1	2003025050	**175,48**
26,00	50	19	1	2003026050	**176,90**
27,00	50	19	1	2003027050	**177,22**
28,00	50	19	1	2003028050	**177,48**
29,00	50	19	1	2003029050	**177,80**
30,00	50	19	1	2003030050	**179,15**
31,00	50	19	1	2003031050	**179,78**
32,00	50	19	1	2003032050	**180,17**
33,00	50	19	1	2003033050	**180,49**
34,00	50	19	1	2003034050	**182,35**
35,00	50	19	1	2003035050	**186,27**
36,00	50	19	1	2003036050	**192,17**
37,00	50	19	1	2003037050	**192,17**
38,00	50	19	1	2003038050	**190,73**
39,00	50	19	1	2003039050	**187,49**
40,00	50	19	1	2003040050	**216,48**
41,00	50	19	1	2003041050	**220,39**
42,00	50	19	1	2003042050	**221,22**
43,00	50	19	1	2003043050	**221,62**
44,00	50	19	1	2003044050	**222,09**
45,00	50	19	1	2003045050	**222,36**
46,00	50	19	1	2003046050	**279,96**
47,00	50	19	1	2003047050	**282,65**
48,00	50	19	1	2003048050	**283,42**
49,00	50	19	1	2003049050	**284,06**
50,00	50	19	1	2003050050	**285,10**

PUNZON EXPULSOR / ***PUNCHER*** / ***POINÇON***

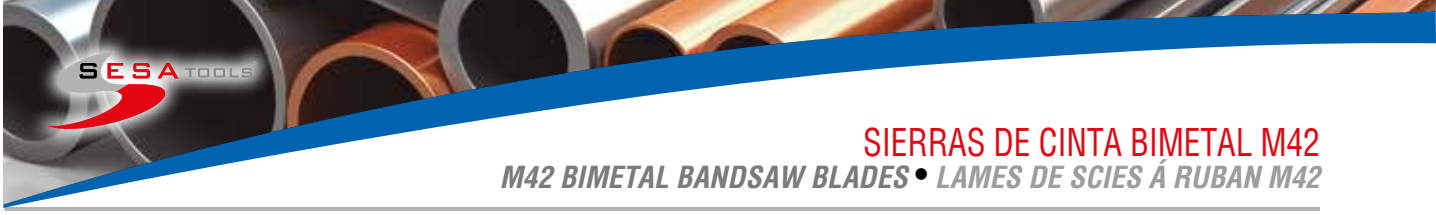


Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8	102	1	2001501	**26,71**

ESTUCHE DE CORONAS PARA MAQUINAS CON BASE ELECTROMÁGNETICA MD
NEW
MD ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES MD



Medidas mm / *Sizes mm*	Uds. / *Pcs.*	Cod.	€/Unid.
18x50, 20x50, 22x50, 24x50, 26x50, 28x50, punzón expulsor 8x102	7	19CW04	**1066,46**



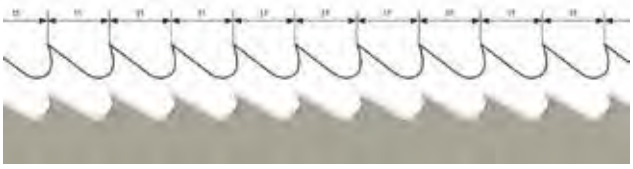
TIPOS DE DENTADOS *TOOTH PITCH • DENTURES*



HSS-CO 8% HRC 68-69

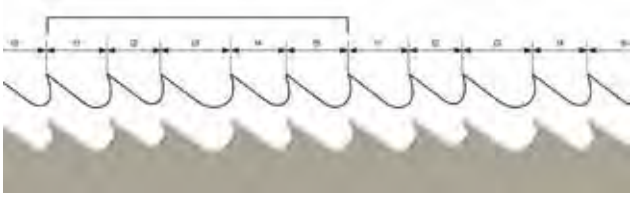
DENTADO FIJO / *CONSTANT TOOTH PITCH* / *DENTURE CONSTANTE*

Dentado constante en toda la longitud. Para cortes en materiales macizos. Recomendado para aceros, aceros inoxidables.
Constant tooth pitch, suitable for solid materials.
Dentures constante, appropiés pour des materiales solides.



DENTADO VARIABLE / *VARIABLE TOOTH PITCH* / *DENTURE VARIABLE*

Dentado alterno en intervalos regulares an toda la longitud.Para cortes en perfiles y tubos, reduce la vibración.
Variable pitch, recommended to suppress the ressonance phenomenons and vibrations.
Denture variable, recommendés pour suprimer les phénomènes de résonance et les vibrations.



TIPOS DE TRISCADOS *TOOTH SETTINGS • TYPES D´AVOYAGES*

TRISCADO ESTÁNDAR / *STANDARD SET* / *AVOYAGE STANDARD*

Triscado constante con secuencia de izquierda / derecha / recto. Recomendado para multiusos. / ***Constant tooth set, with sequence left / right / straight. Recommended for multipurpose.***
Denture constante, avoyage gauche / droite / centre.



TRISCADO DE GRUPO / *GROUP TOOTH SET* / *AVOYAGE GROUPÉ*

Triscado agrupado, secuencia de dientes por grupo.
Mejora los acabados./ ***Group tooth set, improve surfaces quality.***
Avoyage groupé, améliore la calité de la surface.

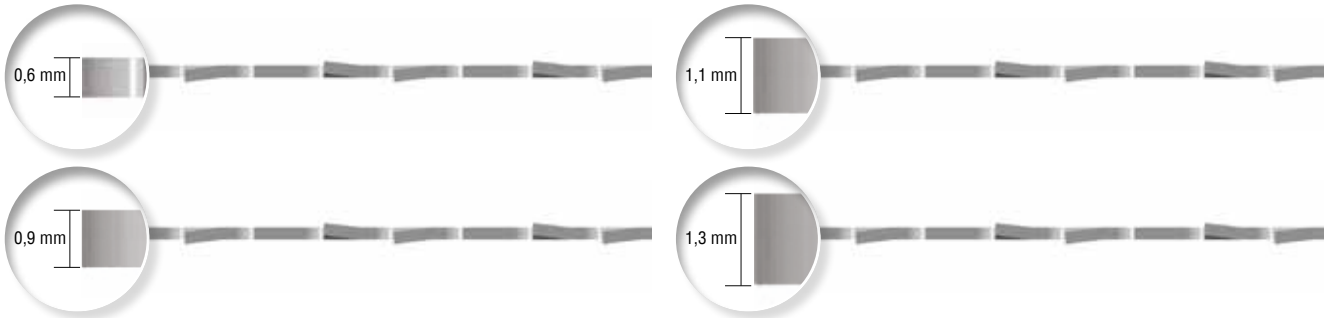


ANCHO DE LA CINTA *BAND WIDTH • LARGEURS DES LAMES*





GROSOR DE LA CINTA *BAND THICKNESS • ÉPAISSEUR DE LAME*



SELECCIÓN DEL DENTADO
TOOTH PITCH SELECTION • SÉLECTION DE LA DENTURE

HSS-CO 8% HRC 68-69

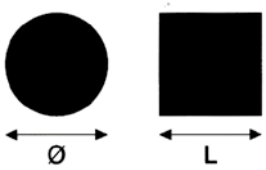


PARA EL CORTE DE TUBOS Y PERFILES / *TO CUT TUBES AND BEAMS* / *POUR LA COUPE DE TUBES ET PROFILES*



	D (mm)										
S (mm)	20	40	60	80	100	120	150	200	300	400	500
2	14	14	14	14	10/14	10/14	10/14	10/14	10/14	8/12	8/12
3				10/14					6/10		
4			10/14				6/10	6/10		6/10	6/10
5		10/14			6/10	6/10			4/6	4/6	4/6
6	10/14		8/12	6/10			5/8	4/6			
7		8/12				5/8					
8			6/10		5/8		4/6				3/4
10	-			5/8		4/6		3/4	3/4	3/4	
12	-	6/10	5/8		4/6		3/4				2/3
15	-			4/6	3/4	3/4		2/3	2/3	2/3	
20	-	-	-	-	-		2/3				
30	-	-									
50	-	-									

PARA EL CORTE DE SECCIONES MACIZAS / *TO CUT SOLID MATERIALS* / *POUR LA COUPE DE MATÉRIAUX PLEINS*



Ø (mm) / L (mm)	Dentado Variable / *Variable Tooth Pitch*	Dentado Fijo / *Constant Tooth Pitch*
- 10	10 / 14	14,00
10 - 20	8 / 12	10,00
20 - 40	6 / 10	8,00
40 - 70	4 / 6	6,00
70 - 140	3 / 4	4,00
140 - 200	3 / 4	3,00
200 - 400	2 / 3	2,00
+ 400	1 / 2	1,25

CÁLCULO DEL PRECIO DE UNA SIERRA DE CINTA
PRICE CALCULATION • CALCULE DU PRIX



HSS-CO 8% HRC 68-69

Anchura / *Width* (mm)	Grosor / *Thickness* (mm)	Precio Metro / *Meter price* €	Precio Soldadura / *Welding Price* €
6	0,9	**18,91**	**8,48**
10	0,9	**18,91**	**8,48**
13	0,6	**17,97**	**8,48**
13	0,9	**17,97**	**8,48**
20	0,9	**19,96**	**8,48**
27	0,9	**21,21**	**8,48**
34	1,1	**28,51**	**10,96**
41	1,3	**36,36**	**12,31**

	PRECIO METRO *METER PRICE PRIX METRE*	x	DESARROLLO / MM *LENGTH LONGEUR*	+	SOLDADURA / WELD *WELD SOUDURE*	=	PRECIO FINAL *PRICE PRIX*
Ej / Ex:	21,21	x	2,450 mm	+	8,08	=	60,04 €

PVP CORTES MAS HABITUALES M42
PRICES OF MOST USUAL CUTS
PRIX DES LAMES DE SCIES Á RUBAN PLUS HABITUELS

Desarrollo / *Length* (mm)	Anchura / *Width* (mm)	€/Unid.
1,325	13	**32,29**
1,330	13	**32,39**
1,470	13	**34,90**
1,475	13	**34,98**
2,000	20	**48,40**
2,060	20	**49,59**
2,352	20	**55,43**
2,960	20	**67,57**
2,070	27	**52,40**
2,360	27	**58,53**
2,450	27	**60,45**

Desarrollo / *Length* (mm)	Anchura / *Width* (mm)	€/Unid.
2,460	27	**60,67**
2,600	27	**63,62**
2,750	27	**66,81**
2,835	27	**68,61**
2,945	27	**70,95**
3,010	27	**72,34**
3,660	27	**86,12**
3,500	34	**110,73**
4,570	34	**141,28**
5,300	34	**162,11**

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION
VITESSE RECOMMENDÉE



HSS-CO 8% HRC 68-69

MATERIAL	Selección Del Dentado *Tooth Selecting*		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte *Coolant Cutting Fluid*	
	Dimension A Cortar / *To Cut*		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	SI / *YES*	NO
Aceros Al Carbono *Carbon Steels*	F-151	1010	105	100	90	85	80		X
	F-111 - F-112	1015 - 1025	110	105	100	95	85		X
	F-113	I035	83	79	73	64	61		X
	M14 - F-115	1045 - 1055	71	73	70	60	49		X
	F-S12 - F 516	W-1 - W-2	78	72	66	60	54		X
Aceros Fácil Mecanizacion *Free Cutting Steels*	-	1108-1111	105	105	IOS	102	87		X
	F-211	1117 -1118	102	102	102	99	84		X
			100	93	84	81	72		X
	F-212	1137-1151 1211 -1215	110	110	105	105	93		X
Aceros al Manganeso *Manganese Steels*	-	1330 - 1340	80	75	71	65	56		X
	-	1513 - 1536	115	112	105	97	85		X
	-	1541 - 1572	75	72	70	60	50		X
Aceros Molibdeno *Molybdenum Steels*	-	4012- 4024	102	97	90	85	75		X
	-	4027 - 4037	36	93	83	81	71		X
	-	4042 - 4047	82	77	68	63	56		X
Aceros Cromo Molibdeno *Chrome Molybdenum Steels*	-	4118 - 4130	100	88	80	80	75		X
	F-125	4135 - 4142	94	86	77	75	64		X
	F-155	4145 - 4161	75	70	67	63	55		X
Aceros Niquel *Nickel Steels*	F-152	2317	90	85	82	77	70	X	
	-	2330 - 2345	74	70	67	61	55	X	
	-	2512 - 2517	64	61	58	52	49	X	
Aceros Cromo Niquel *Chrome Nickel Steels*	F-158	3115 - 3130	90	84	78	75	72	X	
	-	3135 - 3150	70	65	61	57	50	X	
	F-153	3310 - 3315	67	61	55	54	45	X	
	F-154	3320 - 3340	55	50	43	44	40	X	

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / ***Reduce from 10% to 20% for sizes over 200 mm.*** / *Reduire du 10% á 20% dans les mésures plus grandes.*

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION

VITESSE RECOMMENDÉE



HSS-CO 8% HRC 68-69

MATERIAL	Selección Del Dentado *Tooth Selecting*		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte *Coolant Cutting Fluid*	
	Dimension A Cortar / *To Cut*		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	SI / *YES*	NO
Aceros Cromo Niquel Molibdeno *CR-Ni-Mb Steels*	-	4317 - 4320	83	78	70	68	62	X	
	F-127	4337 - 4340	83	75	68	66	54	X	
	-	8615 - 8627	83	78	75	68	54	X	
	F-12S	8630 - 8645	83	78	72	65	54	X	
	-	8647 -8660	75	69	63	60	48	X	
	-	8716 - 6750	63	78	75	69	54	X	
	F-156	9310 - 9317	73	66	55	52	45	X	
	-	9437 - 9446	86	7B	74	68	65	X	
	-	9447 - 9763	80	77	74	66	62	X	
	-	9840 - 9850	78	75	70	66	52	X	
Aceros Niquel Molibdeno *Ni-Mb Steels*	-	4608 - 4626	89	84	80	75	65	X	
	-	4640	79	72	68	63	64	X	
	-	4812	74	67	62	60	52	X	
Aceros Cromo *Chrome Steel*	-	5040 - 5050	90	86	80	78	65		X
	F-121	5120 -5135	90	87	70	75	60		X
	F-122	5140 - 5160	81	77	74	70	58		X
	F-131	50100 - 52100	63	56	52	48	35		X
Aceros Cromo Vanadio *Chrome Vanadium Steels*	-	6117 - 6120	80	77	70	70	49		X
	F-143	6145 - 6152	76	69	63	60	47		X
Aceros 5(Uck) Manganeso *5 (UCK)-Mg Steels*	F-144	9255 - 9260	69	63	60	57	46		X
	-	9261 - 9262	67	60	57	54	45		X
Aceros Trabajados en Frío *Cold Worked Steels*	F-522 - F-520 H	01 - 02	74	67	65	60	50		
	F-523	L-3	63	58	S2	46	36		
	F-520 P	06 - 07	70	65	62	57	46		
	F-S36	A2 - A3 - A6	72	66	65	60	50		
		D2 - D3 - D6	44	39	35	33	24		X
	-	D7	33	30	27	25	20		X

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / ***Reduce from 10% to 20% for sizes over 200 mm.*** / *Reduire du 10% á 20% dans les mésures plus grandes.*

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION

VITESSE RECOMMENDÉE



HSS-CO 8% HRC 68-69

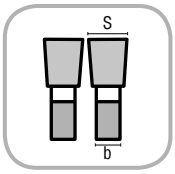
MATERIAL	Selección Del Dentado *Tooth Selecting*		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte *Coolant Cutting Fluid*	
	Dimension A Cortar / *To Cut*		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	Velocidad *Speed* (m / min)	SI / *YES*	NO
Aceros Trabajos en Caliente *Hot Worked Steels*	F-526 - F-536	H12 - H13 - H21	70	68	62	60	48	X	
	-	H22 - H24 - H26	60	54	50	48	42	X	
	F-528	L2 L6 - L7	65	61	50	55	46	X	
	F-532	F-1	62	60	56	50	38		X
Aceros Trabajos de Choque *Steel Shock Works*	F-524	S1	70	63	60	58	48		
	F-520 E	S-2 - S-5	55	50	48	40	35	X	
Aceros Rapidos *High Speed Steels*	F-552	T-1 - T-2	46	43	39	36	28		X
	F-553 - F-554	T4 - T5	39	35	33	30	24		X
	-	T-6 - T4	35	31	28	28	20		X
	-	T-15 - M-1S	23	26	21	19	te		X
	-	M-1	53	50	46	43	35		X
	F-S50A	M-2 - M-3	39	36	33	30	24		X
	-	M-41 - M-43	35	31	28	25	20		X
Aceros Inoxidables *Stainless Steels*	F-314	201 - 202 - 304	42	39	35	34	26	*	
	F-310 C	303 - 303 F	50	45	42	38	30		
	F-331	308 - 309 - 310	31	30	27	24	19		
	F-310 A	314 - 316 - 317	31	30	27	24	18		
	F-332	321 - 347	44	38	35	35	30		
	F-311 - F-312	410 - 420	53	50	45	42	33		
	-	330	27	24	20	17	14		
	F-313	431	39	33	30	28	24		
	-	440A-B-C	42	36	34	30	24		
	-	I7-7Ph - 17-4Ph	36	30	27	24	15		
		NITRONIC - 33	18	18	16	15	12		
	F-330 B	446	30	26	23	20	17		
		D2 - D3 - D6	44	39	35	33	24		
	-	D7	33	30	27	25	20		

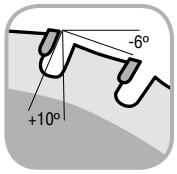
* Especial para INOX / ***For INOX*** / *Pour INOX*

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / ***Reduce from 10% to 20% for sizes over 200mm.*** / *Reduire du 10% á 20% dans les mésures plus grandes.*

DISCO PARA ALUMINIO Y METALES NO FÉRRICOS
ALUMINIUM AND NON-FERROUS METAL DISCS
DISQUE POUR ALUMINIUM ET METAUX NON FERREUX



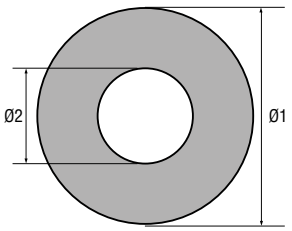




AL · ACERO 400-800 N/mm² · ACERO 800-1100 N/mm² · MD

Ø (mm)	S Grosor / *Thickness*	B Grosor / *Thickness*	Ø Eje / Axe	Z	Cod.	€/Unid.
250	3,2	2,2	32	80	3DM0250	**69,59**
300	3,2	2,2	32	96	3DM0300	**86,79**

ANILLOS REDUCTORES
REDUCTIONS RINGS • BIAGUES DE RÉDUCTION



Ø1 / Ø2 (mm)	Cod.	€/Unid.
32/30	2DR3230	**4,06**
32/25	2DR3225	**4,06**
32/20	2DR3220	**4,06**

SIERRAS
SAW BLADES • SCIES

HOJAS DE SIERRA DE MANO BIMETAL
BIMETAL HAND HACKSAW BLADE
LAMES DE SCIES



ACERO 400-800 N/mm² · CU · INOX · 24 TPI

L1 (mm)	A	Grosor / *Thickness*	Dtes. x pulgada / *Tooth x inch*	Uds. / *Pcs.*	Cod.	€/Unid.
300	13	0,65	24	100	S21224	**2,29**

DESBARBADORES *DEBURRING TOOLS • ÉBAVUREUR*

ACERO 400-800 N/mm² · AL · CU · PL · HSS-G



Uds. / *Pcs.*	Cod.	€/Unid.
1	3DE1000	**20,82**

CUCHILLAS RECAMBIO
DEBURRING TOOLS BLADES • LAMES



Uds. / *Pcs.*	Cod.	€/Unid.
10	3DE1001	**2,39**

GRANETES
POUNCHES • POINTEAU

GRANETE AUTOMÁTICO
AUTHOMATIC CENTER PUNCH • POINTEAU AUTOMATIQUE



Uds. / *Pcs.*	Cod.	€/Unid.
1	5PU5000	**10,56**

NOVEDADES N

- FRESAS ROTATIVAS especial INOX
- Ampliación gama FRESAS FRONTALES
- ESTUCHES para FRESAS FRONTALES

NEW FEATURES N

- ***ROTARY BURRS special for STAINLESS STEEL***
- ***Enlargement of END MILLS range***
- ***END MILLS SETS***

NOUVEAUTÉS N

- ***FRAISES ROTATIVES spécial ACIER INOXYDABLE***
- ***Elargissement de gamme de FRAISES***
- ***COFFERTS de FRAISES***



MILLING-FRAISAGE





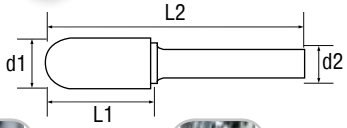
FRESADO

SESA TOOLS®

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR

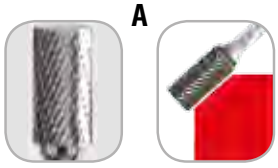


MD



CILÍNDRICA *CYLINDER • CYLINDRIQUE*

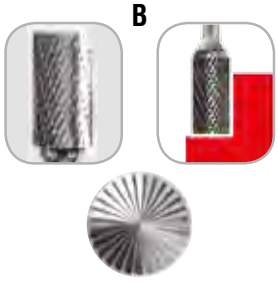
A



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	€/Unid.	6 Cortes / *6 Cuts* Cod.	€/Unid.
A	3,00	3,00	14,00	38,00	FRA3104	18,33	FRA6100	14,33
		6,35	12,70	45,00	FRA3105	28,54	FRA6101	22,99
	6,00	4,00	14,00	50,00	*	*	FRA6107	26,64
		6,00	18,00	50,00	FRA3102	29,56	FRA6102	24,75
		8,00	19,00	64,00	FRA3103	38,65	FRA6103	31,97
		9,60	19,00	64,00	FRA3100	40,91	FRA6104	38,70
		9,60	25,00	70,00	*	*	FRA6109	41,99
		12,70	19,00	64,00	*	*	FRA6105	57,04
		12,70	25,00	70,00	FRA3101	64,23	FRA6106	53,25

CILÍNDRICA CORTE FRONTAL
CYLINDER END CUT • CYLINDRIQUE COUP FRONTALE

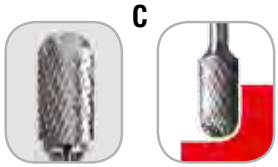
B



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	€/Unid.	6 Cortes / *6 Cuts* Cod.	€/Unid.
B	3,00	3,00	14,00	38.0	FRB3103	23,67	FRB6100	13,74
		6,35	12,70	45,00	FRB3104	29,00	FRB6101	22,55
	6,00	4,00	14,00	50,00	*	*	FRB6107	28,22
		6,00	18,00	50,00	FRB3100	33,55	FRB6102	25,50
		8,00	19,00	64,00	FRB3101	43,91	FRB6103	33,23
		9,60	25,00	70,00	*	*	FRB6109	45,29
		9,60	19,00	64,00	FRB3102	47,21	FRB6104	38,96
		12,70	19,00	64,00	*	*	FRB6105	58,35
		12,70	25,00	70,00	FRB3105	67,01	FRB6106	53,35
		16,00	25,00	70,00	FRB3106	87,69	FRB6108	61,24

CILÍNDRICA CON RADIO *BULL NOSE • CYLINDRIQUE A RAYON*

C



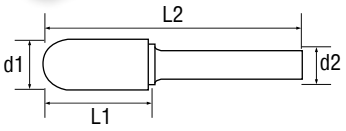
Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	€/Unid.	6 Cortes / *6 Cuts* Cod.	€/Unid.
C	3,00	3,00	14,00	38,00	FRC3104	23,64	FRC6100	14,98
		6,35	12,70	45,00	FRC3105	31,98	FRC6101	22,26
	6,00	4,00	14,00	50,00	*	*	FRC6108	28,30
		6,00	18,00	50,00	FRC3102	38,88	FRC6102	30,07
		8,00	19,00	64,00	FRC3103	43,26	FRC6103	33,98
		9,60	19,00	64,00	FRC3100	45,52	FRC6104	39,36
		12,70	19,00	64,00	*	*	FRC6105	57,32
		12,70	25,00	70,00	FRC3101	76,42	FRC6106	57,91
		16,00	25,00	70,00	FRC3106	89,82	FRC6107	70,55
		Especial cerrajería / *Special locksmith / Serrurerie spécial*						
		6,00	18,00	100,00	*	*	FRC6109	59,11

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



MD



ESFÉRICA *BALL • SPHERIQUE*



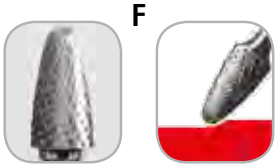
Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
D	3,00	3,00	2,50	38,00	*	*	FRD6100	14,59
		4,00	3,40	38,00	FRD3103	43,68	FRD6102	33,42
		6,35	5,00	38,00	*	*	FRD6101	22,85
	6,00	6,00	4,70	50,00	FRD3100	32,66	FRD6103	24,57
		8,00	6,00	52,00	*	*	FRD6106	27,21
		9,60	8,00	54,00	FRD3101	36,94	FRD6104	29,95
		12,70	11,00	56,00	FRD3102	50,13	FRD6105	41,46
		16,00	14,00	59,00	FRD3104	66,00	FRD6107	51,82

OVAL *OVAL • OVALE*



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
E	3,00	3,00	6,00	38,00	*	*	FRE6100	17,23
		6,35	9,50	42,00	*	*	FRE6101	22,05
	6,00	8,00	15,00	60,00	*	*	FRE6102	33,23
		9,60	16,00	60,00	FRE3100	45,51	FRE6103	36,50
		12,70	22,00	67,00	FRE3101	69,54	FRE6104	55,13
		16,00	25,00	70,00	*	*	FRE6105	73,79

ÁRBOL CON RADIO *ROUND TREE • OGIVE A RAYON*

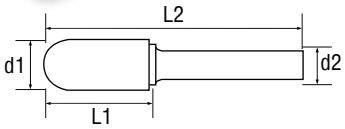


Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
F	3,00	3,00	14,00	38,00	*	*	FRF6100	18,84
		6,35	12,70	45,00	*	*	FRF6101	21,68
	6,00	6,00	18,00	50,00	FRF3102	37,08	FRF6102	29,06
		8,00	20,00	65,00	FRF3103	42,55	FRF6106	33,93
		9,60	19,00	64,00	FRF3100	45,67	FRF6103	42,80
		12,70	25,00	70,00	FRF3101	68,57	FRF6104	54,26
		16,00	25,00	70,00	FRF3104	90,82	FRF6105	71,11

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR





MD

ÁRBOL CON PUNTA *POINTED TREE • ARBRE*



G



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
G	3,00	3,00	14,00	38,00	*	*	FRG6100	18,84
		6,35	12,70	45,00	*	*	FRG6101	21,98
	6,00	6,00	18,00	50,00	*	*	FRG6102	28,05
		8,00	19,00	64,00	FRG3100	44,94	FRG6106	33,55
		9,60	19,00	64,00	*	*	FRG6103	39,92
		12,70	19,00	64,00	*	*	FRG6104	50,36
		12,70	25,00	70,00	FRG3101	67,65	FRG6105	54,27

LLAMA *FLAME • FLAMME*



H



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
H	3,00	3,00	6,00	38,00	*	*	FRH6104	18,79
	6,00	6,00	14,00	50,00	*	*	FRH6101	28,77
		8,00	19,00	64,00	*	*	FRH6102	35,76
		9,60	19,00	65,00	FRH3102	81,01	FRH6103	66,11
		12,70	32,00	77,00	*	*	FRH6100	73,80

CÓNICA 90º *COUNTER SINK 90º • CONIQUE 90º*



K



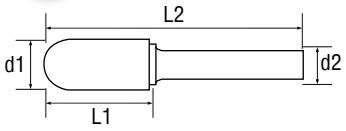
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
K	6,00	9,60	4,70	53,00	*	*	FRK6101	32,07
		16,00	8,00	57,00	*	*	FRK6102	53,55

Para medidas no tarificadas consultar. / *For measurements not listed, request* / *Pour des mesures non cotées consulter*

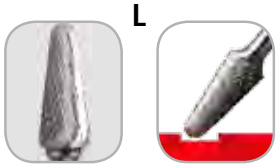
FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR



MD

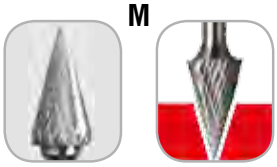


CÓNICA CON RADIO *BALL NOSE CONE • CONIQUE A RAYON*



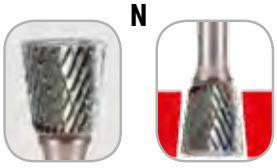
Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
L	3,00	3,00	14,00	38,00	*	*	FRL6100	16,77
		6,35	15,80	48,00	*	*	FRL6101	24,97
	6,00	6,00	18,00	50,00	FRL3102	40,17	*	*
		8,00	25,40	70,00	*	*	FRL6105	38,63
		9,60	30,00	76,00	FRL3100	58,34	FRL6102	45,23
		12,70	32,00	77,00	FRL3101	70,64	FRL6103	58,09
		16,00	33,30	78,00	*	*	FRL6104	106,91

CÓNICA CON PUNTA *CONE • CONIQUE TRONQUEE*



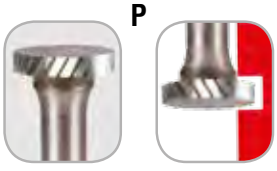
Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
M	3,00	3,00	11,00	38,00	*	*	FRM6100	19,32
	6,00	6,00	20,00	50,00	*	*	FRM6101	28,49
		8,00	18,00	18,00	*	*	FRM6104	40,99
		9,60	16,00	64,00	FRM3101	58,34	FRM6102	42,74
		12,70	22,00	71,00	FRM3102	73,65	FRM6103	59,63
		16,00	25,00	71,00	*	*	FRM6105	77,02

CONO INVERTIDO *INVERTED CONE • CONIQUE RENVERSEE*



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / *3 Cuts* Cod.	3 Cortes / *3 Cuts* €/Unid.	6 Cortes / *6 Cuts* Cod.	6 Cortes / *6 Cuts* €/Unid.
N	3,00	3,00	4,00	38,00	*	*	FRN6101	17,03
	6,00	6,00	8,00	50,00	*	*	FRN6102	28,54
		12,70	12,70	58,00	*	*	FRN6103	55,06

PASTILLA *RIM SHAPE • DISQUE*



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	2 Cortes / *2 Cuts* Cod.	2 Cortes / *2 Cuts* €/Unid.	2 Cortes / *2 Cuts* Cod.	2 Cortes / *2 Cuts* €/Unid.
P	3,00	10,00	1,60	34,00	FRP3101	42,33	*	*
	6,00	12,00	2,60	48,00	*	*	FRP6101	41,05

Para medidas no tarificadas consultar. / ***For measurements not listed, request*** / *Pour des mesures non cotées consulter*

FRESAS ROTATIVAS DE METAL DURO

RECOMENDADO PARA ACERO INOXIDABLE

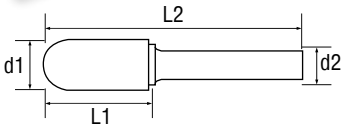
HARD METAL ROTARY BURRS

RECOMMENDED FOR STAINLESS STEEL

FRAISES ROTATIVES MÉTAL DUR

RECOMMANDÉ POUR INOX



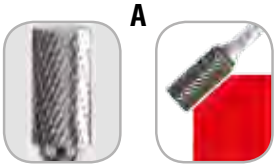


MD

SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

CILÍNDRICA *CYLINDER • CYLINDRIQUE* NEW

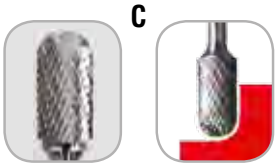
A



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod. INOX	€/Unid.
	6,00	6,00	18,00	50,00	FRA3102-INOX	28,13 €
		12,70	25,00	70,00	FRA3101-INOX	61,73 €

CILÍNDRICA CON RADIO *BULL NOSE • CYLINDRIQUE A RAYON* NEW

C



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod. INOX	€/Unid.
	6,00	18,00	50,00	50,00	FRC3102-INOX	32,73 €
		12,70	25,00	70,00	FRC3101-INOX	69,22 €

ESFÉRICA *BALL • SPHERIQUE* NEW

D



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod. INOX	€/Unid.
	6,00	6,00	4,70	50,00	FRD3100-INOX	30,08 €
		12,70	11,00	56,00	FRD3102-INOX	48,77 €

ÁRBOL CON RADIO *ROUND TREE • OGIVE A RAYON* NEW

F



Tipo / *Type*	Ø d2 Mango *Shank* (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod. INOX	€/Unid.
	6,00	6,00	18,00	50,00	FRF3102-INOX	34,19 €
		12,70	25,00	70,00	FRF3101 -INOX	63,74 €

ESTUCHES DE FRESAS ROTATIVAS
ROTARY BURRS SETS
COFFRET FRAISES ROTATIVES



130801256

Cod. FR	Uds. *Pcs.*	€/Unid.
FRA6106	1	
FRB6106	1	
FRC6106	1	
FRD6105	1	
FRE6104	1	
FRF6104	1	
FRG6105	1	
FRL6103	1	
FRM6103	1	
FRH6100	1	
TOTAL	10	561,15



130801966

Cod. FR	Uds. *Pcs.*	€/Unid.
FRB6106	1	
FRB6104	1	
FRC6106	1	
FRC6104	1	
FRL6103	1	
FRE6103	1	
FRG6105	1	
FRG6103	1	
FRD6105	1	
FRF6104	1	
TOTAL	10	474,08



130801255

Cod. FR	Uds. *Pcs.*	€/Unid.
FRB6106	1	
FRF6104	1	
FRC6106	1	
FRD6105	1	
FRM6103	1	
TOTAL	5	266,61



130801965

Cod. FR	Uds. *Pcs.*	€/Unid.
FRC6104	1	
FRB6104	1	
FRG6103	1	
FRF6103	1	
FRM6102	1	
TOTAL	5	203,78



130801967*

Cod. FR	Uds. *Pcs.*	€/Unid.
CILINDRICA *CYLINDER*	1	
CIL. CON RADIO *BULL NOSE*	1	
ESFÉRICA *BALL*	1	
OVAL *OVAL*	1	
ÁRBOL RADIO *ROUND TREE*	1	
ÁRBOL PUNTA *POINTED TREE*	1	
LLAMA *FLAME*	1	
CÓNICA RADIO *BALL NOSE CONE*	1	
CÓNICA PUNTA *CONE*	1	
CONO INVERTIDO *INVERTED CONE*	1	
TOTAL	10	167,16

*Diámetro fresa/mango 3 mm, dentado cruzado / ***Burr and shank diameter 3 mm, 6 cuts*** / *Diametre fraise et queue 3 mm, 6 coups*

EXPOSITOR 40 PIEZAS
DISPLAY 40 PIECES • DISPLAY 40 PIECES

Cod.	Uds. / *Pcs.*
FRB6102	2
FRC6102	2
FRF6102	2
FRG6102	2
FRL6103	2
FRB6103	2
FRC6103	2
FRE6104	2
FRD6104	2
FRH6100	2

Cod.	Uds. / *Pcs.*
FRB6104	2
FRC6104	2
FRF6103	2
FRG6103	2
FRL6102	2
FRB6106	2
FRC6106	2
FRF6104	2
FRG6105	2
FRA6105	2
TOTAL €	1.759,90

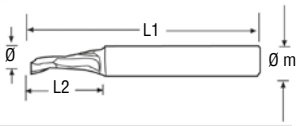
Nota: Se puede adaptar el contenido del expositor según requisitos cliente.
Content of display adaptable / *Contenu du display adaptable*



FRESA FRONTAL UN DIENTE
1Z FINISHING END MILLS • FRAISE 1Z FINITION

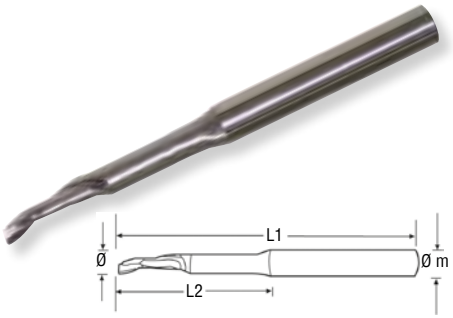


AL | HSS-CO 5% | 1Z



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	60	12	8	1	TC0300	**17,61**
4,00	60	12	8	1	TC0400	**17,61**
5,00	60	14	8	1	TC0500	**17,61**
6,00	60	14	8	1	TC0600	**17,61**
7,00	60	14	8	1	TC0700	**20,36**
8,00	80	14	8	1	TC0800	**19,28**
10,00	80	14	8	1	TC1000	**24,54**

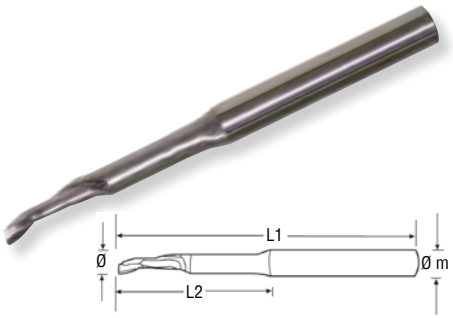
FRESA FRONTAL LARGA UN DIENTE
1Z FINISHING LONG END MILLS • FRAISE LONGUE 1Z FINITION



AL | HSS-CO 5% | 1Z

Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Uds. / *Pcs.*	Cod.	€/Unid.
4,00	80	16 - 45	8	1	TL0400	**25,40**
5,00	80	16 - 45	8	1	TL0500	**25,40**
6,00	90	16 - 45	8	1	TL0600	**25,40**
8,00	100	30 - 70	8	1	TL0800	**38,48**

FRESA FRONTAL LARGA UN DIENTE PARA PVC
1Z FINISHING LONG END MILLS FOR PVC
FRAISE LONGUE 1Z FINITION POUR PVC



AL | PVC | HSS-CO 5% | 1Z

Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Uds. / *Pcs.*	Cod.	€/Unid.
5,00 PVC +	120	84	8	1	TPVC05	**38,72**
8,00 PVC +	120	80	8	1	TPVC08	**52,85**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

			fz(mm/z)			
Material	**Composición**	**Vc**	**Ø 3**	**Ø 6**	**Ø 8**	**Ø 10**
AL	Si ≤ 12%	160-260	0.008	0.018	0.024	0.03

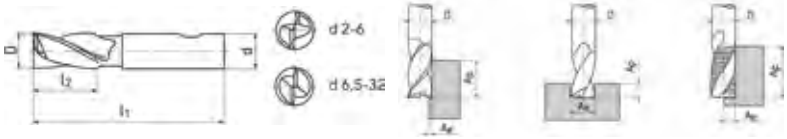
FRESA FRONTAL DOS DIENTES PARA ALUMINIO

NEW

2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM
FRAISES QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM



AL ACERO | HSS-CO 8% | DIN 844W | 2Z | DIN 1835B | 40° | N



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	51	7	6	2	1	TDW0200	**16,54**
2,50	52	8	6	2	1	TDW0250	**16,54**
3,00	52	8	6	2	1	TDW0300	**16,54**
3,50	54	10	6	2	1	TDW0350	**16,54**
4,00	55	11	6	2	1	TDW0400	**16,54**
4,50	55	11	6	2	1	TDW0450	**16,54**
5,00	57	13	6	2	1	TDW0500	**16,54**
5,50	57	13	6	2	1	TDW0550	**16,54**
6,00	57	13	6	2	1	TDW0600	**16,54**
6,50	66	16	10	2	1	TDW0650	**22,52**
7,00	66	16	10	2	1	TDW0700	**22,52**
7,50	66	16	10	2	1	TDW0750	**22,52**
8,00	69	19	10	2	1	TDW0800	**22,52**
8,50	69	19	10	2	1	TDW0850	**23,57**
9,00	69	19	10	2	1	TDW0900	**23,57**
9,50	69	19	10	2	1	TDW0950	**23,57**
10,00	72	22	10	2	1	TDW1000	**23,57**
11,00	79	22	12	2	1	TDW1100	**30,57**
12,00	83	26	12	2	1	TDW1200	**30,57**
13,00	83	26	12	2	1	TDW1300	**33,78**
14,00	83	26	12	2	1	TDW1400	**33,78**
15,00	83	26	12	2	1	TDW1500	**41,22**
16,00	92	32	16	2	1	TDW1600	**41,22**
17,00	92	32	16	2	1	TDW1700	**51,13**
18,00	92	32	16	2	1	TDW1800	**51,13**
19,00	92	32	16	2	1	TDW1900	**62,22**
20,00	104	38	20	2	1	TDW2000	**62,22**
21,00	104	38	20	2	1	TDW2100	**99,45**
22,00	104	38	20	2	1	TDW2200	**99,45**
24,00	121	45	25	2	1	TDW2400	**99,45**
25,00	121	45	25	2	1	TDW2500	**99,45**
26,00	121	45	25	2	1	TDW2600	**132,56**
28,00	121	45	25	2	1	TDW2800	**157,29**
30,00	121	45	25	2	1	TDW3000	**168,39**
32,00	133	53	25	2	1	TDW3200	**189,90**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
AL	Si ≤ 12%	0,5xD	1xD	160-300	0.0117	0.0286	0.0377	0.0468	0.0572	0.0754	0.0845	0.0949

FRESA FRONTAL LARGA DOS DIENTES PARA ALUMINIO

2Z STRAIGHT SHANK LONG END MILLS ESPECIAL FOR ALUMINIUM

FRAISE LONGUE QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM

NEW



AL

ACERO

HSS-CO 8%

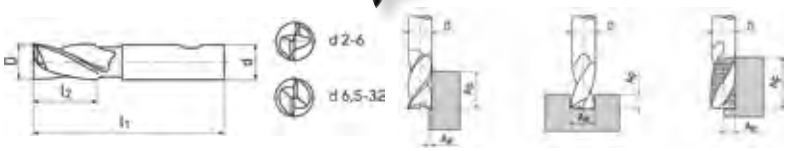
DIN 844W

2Z

DIN 1835B

40°

N



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	54	10	6	2	1	TDWL0200	**23,15**
3,00	56	12	6	2	1	TDWL0300	**23,15**
4,00	63	19	6	2	1	TDWL0400	**23,15**
5,00	68	24	6	2	1	TDWL0500	**23,15**
6,00	68	24	6	2	1	TDWL0600	**23,15**
7,00	80	30	10	2	1	TDWL0700	**31,01**
8,00	88	38	10	2	1	TDWL0800	**33,16**
10,00	95	45	10	2	1	TDWL1000	**34,48**
11,00	102	45	12	2	1	TDWL1100	**47,27**
12,00	110	53	12	2	1	TDWL1200	**47,27**
13,00	110	53	12	2	1	TDWL1300	**57,01**
14,00	110	53	12	2	1	TDWL1400	**54,29**
15,00	110	53	12	2	1	TDWL1500	**61,70**
16,00	123	63	16	2	1	TDWL1600	**61,70**
18,00	123	63	16	2	1	TDWL1800	**79,32**
20,00	141	75	20	2	1	TDWL2000	**91,89**
22,00	141	75	20	2	1	TDWL2200	**130,68**
25,00	166	90	25	2	1	TDWL2500	**142,40**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)							
Material	**Dureza** / ***Strength*** / *Dureté*	**Ap**	**Ae**	**Vc**	**Ø 3**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
AL	Si ≤ 12%	0,5xD	1xD	160-300	0.0117	0.0286	0.0377	0.0468	0.0572	0.0754	0.0845	0.0949

FRESAS CON MANGO CILÍNDRICO
STRAIGHT SHANK END MILLS • FRAISES QUEUE CYLINDRIQUE

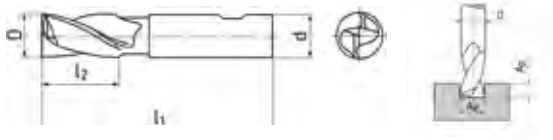
FRESA FRONTAL ACABADO DOS DIENTES
2Z FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION 2Z



ACERO · INOX · F

HSS-CO 8% · DIN 327N · 2Z

DIN 1835B · 25° · N



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	48	4	6	2	1	TDC0200	**15,63**
2,50	49	5	6	2	1	TDC0250	**15,63**
3,00	49	5	6	2	1	TDC0300	**15,63**
3,50	51	7	6	2	1	TDC0350	**16,96**
4,00	51	7	6	2	1	TDC0400	**14,95**
5,00	52	8	6	2	1	TDC0500	**14,95**
6,00	52	8	6	2	1	TDC0600	**14,95**
7,00	60	10	10	2	1	TDC0700	**24,35**
8,00	61	11	10	2	1	TDC0800	**19,23**
9,00	61	11	10	2	1	TDC0900	**24,93**
10,00	63	13	10	2	1	TDC1000	**19,08**
11,00	70	13	12	2	1	TDC1100	**29,31**
12,00	73	16	12	2	1	TDC1200	**24,64**
13,00	73	16	12	2	1	TDC1300	**37,78**
14,00	73	16	12	2	1	TDC1400	**36,14**
15,00	73	16	16	2	1	TDC1500	**42,26**
16,00	79	19	16	2	1	TDC1600	**34,32**
17,00	79	19	16	2	1	TDC1700	**50,29**
18,00	79	19	16	2	1	TDC1800	**48,11**
19,00	79	19	16	2	1	TDC1900	**63,46**
20,00	88	22	20	2	1	TDC2000	**57,45**
22,00	88	22	25	2	1	TDC2200	**78,58**
24,00	102	26	25	2	1	TDC2400	**105,20**
25,00	102	26	25	2	1	TDC2500	**99,57**
28,00	102	26	25	2	1	TDC2800	**125,97**
30,00	102	26	25	2	1	TDC3000	**143,53**
32,00	112	32	32	2	1	TDC3200	**147,43**
36,00	112	32	32	2	1	TDC3600	**197,22**
40,00	130	38	38	2	1	TDC4000	**242,14**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	39	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
ACERO	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	35	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	25	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL LARGA ACABADO DOS DIENTES

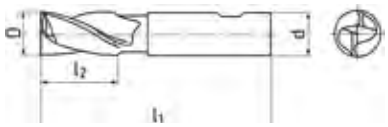
2Z FINISHING STRAIGHT SHANK LONG END MILLS

FRAISE LONGUE QUEUE CYLINDRIQUE FINITION 2Z

NEW









Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	54	7	6	2	1	TDCL0200	**18,57**
3,00	56	8	6	2	1	TDCL0300	**18,57**
3,50	59	10	6	2	1	TDCL0350	**18,57**
4,00	63	11	6	2	1	TDCL0400	**16,88**
4,50	63	11	6	2	1	TDCL0450	**18,57**
5,00	68	13	6	2	1	TDCL0500	**16,88**
5,50	68	13	6	2	1	TDCL0550	**18,57**
6,00	68	13	6	2	1	TDCL0600	**16,88**
6,50	80	16	10	2	1	TDCL0650	**23,26**
7,00	80	16	10	2	1	TDCL0700	**21,15**
8,00	88	19	10	2	1	TDCL0800	**21,15**
8,50	88	19	10	2	1	TDCL0850	**27,41**
9,00	88	19	10	2	1	TDCL0900	**24,92**
10,00	95	22	10	2	1	TDCL1000	**24,92**
11,00	102	22	12	2	1	TDCL1100	**28,88**
12,00	110	26	12	2	1	TDCL1200	**28,88**
13,00	110	26	12	2	1	TDCL1300	**35,92**
14,00	110	26	12	2	1	TDCL1400	**35,92**
15,00	110	26	12	2	1	TDCL1500	**41,63**
16,00	123	32	16	2	1	TDCL1600	**41,63**
18,00	123	32	16	2	1	TDCL1800	**51,29**
20,00	141	38	20	2	1	TDCL2000	**64,00**
22,00	141	38	20	2	1	TDCL2200	**88,15**
24,00	166	45	25	2	1	TDCL2400	**112,45**
25,00	166	45	25	2	1	TDCL2500	**123,32**
26,00	166	45	25	2	1	TDCL2600	**134,38**
28,00	166	45	25	2	1	TDCL2800	**156,86**
30,00	166	45	25	2	1	TDCL3000	**177,69**
32,00	182	53	32	2	1	TDCL3200	**207,33**
36,00	182	53	32	2	1	TDCL3600	**327,93**
40,00	196	63	32*	2	1	TDCL4000	**382,32**

* d≠ DIN 327

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Durete*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	39	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
ACERO	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	35	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	25	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESAS CON MANGO CILÍNDRICO
STRAIGHT SHANK END MILLS • FRAISES QUEUE CYLINDRIQUE

FRESA FRONTAL ACABADO DOS DIENTES-TIALN
NEW

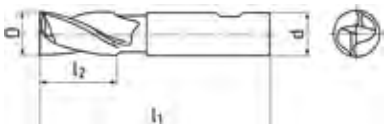
2Z FINISHING STRAIGHT SHANK END MILLS- TIALN
FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN



ACERO · INOX · F

HSS-CO 8% · TIALN · DIN 327N · 2Z

DIN 1835B · 25° · N





Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	47	2,5	6	2	1	TDC0100T	19,97
1,50	47	3	6	2	1	TDC0150T	20,56
2,00	48	4	6	2	1	TDC0200T	16,49
2,50	49	5	6	2	1	TDC0250T	17,88
2,80	49	5	6	2	1	TDC0280T	17,61
3,00	49	5	6	2	1	TDC0300T	17,66
3,50	50	6	6	2	1	TDC0350T	19,06
3,80	51	7	6	2	1	TDC0380T	17,61
4,00	51	7	6	2	1	TDC0400T	18,84
4,50	51	7	6	2	1	TDC0450T	20,23
4,80	52	8	6	2	1	TDC0480T	20,50
5,00	52	8	6	2	1	TDC0500T	20,01
5,50	52	8	6	2	1	TDC0550T	21,39
5,75	52	8	6	2	1	TDC0575T	21,69
6,00	52	8	6	2	1	TDC0600T	21,18
6,50	60	10	10	2	1	TDC0650T	25,13
7,00	60	10	10	2	1	TDC0700T	25,89
7,50	60	10	10	2	1	TDC0750T	28,84
7,75	61	11	10	2	1	TDC0775T	29,14
8,00	61	11	10	2	1	TDC0800T	27,15
8,50	61	11	10	2	1	TDC0850T	31,31
9,00	61	11	10	2	1	TDC0900T	31,44
9,50	61	11	10	2	1	TDC0950T	35,86
9,70	63	13	10	2	1	TDC0970T	35,80
10,00	63	13	10	2	1	TDC1000T	32,73
10,50	70	13	12	2	1	TDC1050T	37,41
11,00	70	13	12	2	1	TDC1100T	37,10
11,50	70	13	12	2	1	TDC1150T	42,26
11,70	70	13	12	2	1	TDC1170T	42,49
12,00	73	16	12	2	1	TDC1200T	38,27
12,50	73	16	12	2	1	TDC1250T	51,87
13,00	73	16	12	2	1	TDC1300T	45,30
13,50	73	16	12	2	1	TDC1350T	46,06
14,00	73	16	12	2	1	TDC1400T	46,48
15,00	73	16	12	2	1	TDC1500T	52,42
16,00	79	19	16	2	1	TDC1600T	53,58
17,00	79	19	16	2	1	TDC1700T	62,99
18,00	79	19	16	2	1	TDC1800T	64,17
19,00	79	19	16	2	1	TDC1900T	75,84
20,00	88	22	20	2	1	TDC2000T	77,15
21,00	88	22	20	2	1	TDC2100T	103,90
22,00	88	22	20	2	1	TDC2200T	93,34
24,00	102	26	25	2	1	TDC2400T	107,23
25,00	102	26	25	2	1	TDC2500T	110,26
25,00	96	26	20*	2	1	TDC250020T	110,26
26,00	102	26	25	2	1	TDC2600T	118,43
28,00	102	26	25*	2	1	TDC2800T	132,20
28,00	96	26	20*	2	1	TDC280020T	132,20
30,00	102	26	25	2	1	TDC3000T	145,99
32,00	112	32	32	2	1	TDC3200T	164,70
36,00	112	32	32*	2	1	TDC3600T	206,96
40,00	118	38	32*	2	1	TDC400032T	254,71

* d≠ DIN 327

FRESA FRONTAL ACABADO DOS DIENTES-TIALN

NEW

2Z FINISHING STRAIGHT SHANK END MILLS- TIALN

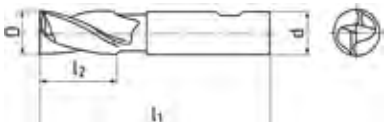
FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN



ACERO · INOX · F

HSS-CO 8% · TIALN · DIN 327N · 2Z

DIN 1835B · 25° · N





Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	67	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	58	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
ACERO	≤ 1100 N/mm²	0,5xD	1xD	36	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	36	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	22,5	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	52	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	37	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL ACABADO TRES DIENTES - PM ALTIN

NEW

3Z FINISHING STRAIGHT SHANK END MILLS - PM ALTIN

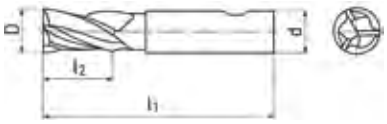
FRAISES QUEUE CYLINDRIQUE FINITION 3Z - PM ALTIN



ACERO · INOX · F

PM · ALTIN · DIN 327N · 3Z

DIN 1835B · 30° · N





Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	52	8	6	3	1	TDC0600PM	**26,70**
8,00	61	11	10	3	1	TDC0800PM	**34,90**
10,00	63	13	10	3	1	TDC1000PM	**39,36**
12,00	73	16	12	3	1	TDC1200PM	**48,97**
14,00	73	16	12	3	1	TDC1400PM	**58,15**
16,00	79	19	16	3	1	TDC1600PM	**71,17**
18,00	79	19	16	3	1	TDC1800PM	**81,76**
20,00	88	22	20	3	1	TDC2000PM	**110,52**

Más rápida y menor vibración / ***Faster and less vibration*** / *Plus rapide et moins de vibrations*

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 850 N/mm²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
ACERO	≤ 1100 N/mm²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 900 N/mm²	0,5xD	1xD	77	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 1100 N/mm²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	> 1100 N/mm²	0,5xD	1xD	51	0.0168	0.0224	0.028	0.0336	0.0448	0.0504	0.056
INOX	750 - 850 N/mm²	0,5xD	1xD	38	0.024	0.032	0.04	0.048	0.064	0.072	0.08
F	< 240 HB	0,5xD	1xD	89	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	> 240 HB	0,5xD	1xD	66	0.024	0.032	0.04	0.048	0.064	0.072	0.08

FRESAS CON MANGO CILÍNDRICO
STRAIGHT SHANK END MILLS • FRAISES QUEUE CYLINDRIQUE

FRESA FRONTAL RADIAL ACABADO DOS DIENTES
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z

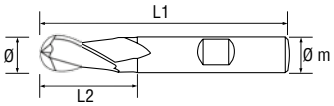


ACERO · F · INOX · TI

HSS-CO 8% · DIN 327N · 2Z

DIN 1835B · 25° · N





Ø mm (h10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
4,00	51	7	6	2	1	TRC0400	**30,46**
5,00	52	8	6	2	1	TRC0500	**30,46**
6,00	52	8	6	2	1	TRC0600	**30,46**
8,00	61	11	10	2	1	TRC0800	**32,80**
10,00	63	13	10	2	1	TRC1000	**32,92**
12,00	73	16	12	2	1	TRC1200	**43,15**
14,00	73	16	12	2	1	TRC1400	**56,96**
16,00	79	19	16	2	1	TRC1600	**64,22**
18,00	79	19	16	2	1	TRC1800	**77,23**
20,00	88	22	20	2	1	TRC2000	**91,58**
22,00	88	22	20	2	1	TRC2200	**118,40**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Dureté*	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 850 N/mm²	0,5xD	1xD	39	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.022	0.029	0.036	0.044	0.058	0.065	0.073
ACERO	≤ 900 N/mm²	0,5xD	1xD	30	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 1100 N/mm²	0,5xD	1xD	20	0.0154	0.0203	0.0252	0.0308	0.0406	0.0455	0.0511
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	> 240 HB	0,5xD	1xD	25	0.022	0.029	0.036	0.044	0.058	0.065	0.073
TI	≤ 1500 N/mm²	0,5xD	1xD	12	0.0154	0.0203	0.0252	0.0308	0.0406	0.0455	0.051

FRESA FRONTAL RADIAL ACABADO DOS DIENTES - PM ALTIN
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS - PM ALTIN
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z - PM ALTIN

NEW

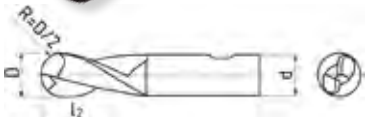


ACERO · F

PM · ALTIN · DIN 327N · 2Z

DIN 1835B · 25° · N





Ø mm (h10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
4,00	49	5	6	2	1	TRC0400PM	**37,91**
5,00	51	7	6	2	1	TRC0500PM	**37,91**
6,00	52	8	6	2	1	TRC0600PM	**37,91**
7,00	52	8	6	2	1	TRC0700PM	**48,55**
8,00	61	11	10	2	1	TRC0800PM	**48,55**
9,00	63	13	10	2	1	TRC0900PM	**55,76**
10,00	73	16	12	2	1	TRC1000PM	**55,76**
12,00	73	16	12	2	1	TRC1200PM	**66,96**
14,00	79	19	16	2	1	TRC1400PM	**80,43**
16,00	79	19	16	2	1	TRC1600PM	**92,70**
18,00	88	22	20	2	1	TRC1800PM	**111,80**
20,00	88	22	20	2	1	TRC2000PM	**138,65**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Dureté*	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
ACERO	≤ 850 N/mm²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 900 N/mm²	0,5xD	1xD	77	0.024	0.032	0.04	0.048	0.064	0.072	0.08
F	< 240 HB	0,5xD	1xD	89	0.024	0.032	0.04	0.048	0.064	0.072	0.08

FRESA FRONTAL ACABADO - VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION NZ

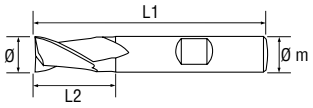


ACERO · F · INOX · TI

HSS-CO 8% · DIN 844N · 3Z-6Z

DIN 1835B · 30° · N





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	51	7	6	3	1	TVC0200	**17,28**
2,50	52	8	6	3	1	TVC0250	**17,28**
3,00	52	8	6	4	1	TVC0300	**17,28**
3,50	55	11	6	4	1	TVC0350	**17,28**
4,00	55	11	6	4	1	TVC0400	**16,53**
4,50	57	13	6	4	1	TVC0450	**17,28**
5,00	57	13	6	4	1	TVC0500	**16,53**
6,00	57	13	6	4	1	TVC0600	**16,53**
7,00	66	16	10	4	1	TVC0700	**25,34**
8,00	69	19	10	4	1	TVC0800	**20,05**
9,00	69	19	10	4	1	TVC0900	**26,47**
10,00	72	22	10	4	1	TVC1000	**23,02**
11,00	79	22	12	4	1	TVC1100	**31,92**
12,00	83	26	12	4	1	TVC1200	**27,83**
13,00	83	26	12	4	1	TVC1300	**41,06**
14,00	83	26	12	4	1	TVC1400	**37,08**
15,00	83	26	12	4	1	TVC1500	**44,25**
16,00	92	32	16	4	1	TVC1600	**43,19**
17,00	92	32	16	4	1	TVC1700	**53,17**
18,00	92	32	16	4	1	TVC1800	**50,86**
20,00	104	38	20	4	1	TVC2000	**59,58**
22,00	104	38	20	5	1	TVC2200	**86,47**
24,00	121	45	25	5	1	TVC2400	**107,41**
25,00	121	45	25	5	1	TVC2500	**107,41**
26,00	121	45	25	5	1	TVC2600	**130,37**
28,00	121	45	25	5	1	TVC2800	**134,24**
30,00	121	45	25	5	1	TVC3000	**155,38**
32,00	133	53	32	6	1	TVC3200	**160,02**
36,00	133	53	32	6	1	TVC3600	**209,42**
40,00	143	63	32*	6	1	TVC400032	**251,74**

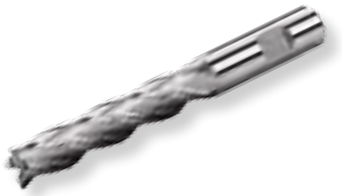
* d≠ DIN 844

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Dureté*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
	≤ 600 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 850 N/mm²	1xD	0,1xD	39	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
ACERO	≤ 1100 N/mm²	1xD	0,1xD	24	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 900 N/mm²	1xD	0,1xD	30	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	> 1100 N/mm²	1xD	0,1xD	20	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	15	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
F	< 240 HB	1xD	0,1xD	35	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	12	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077

FRESA FRONTAL LARGA ACABADO VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK LONG END MILLS
FRAISES LONGUE QUEUE CYLINDRIQUE FINITION NZ

NEW

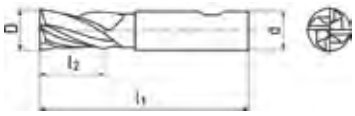


ACERO · F · INOX · TI

HSS-CO 8% · DIN 844N · 3Z-6Z

DIN 1835B · N





Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	54	10	6	3	1	TVCL0200	**17,65**
3,00	56	12	6	4	1	TVCL0300	**17,65**
3,50	59	15	6	4	1	TVCL0350	**19,42**
4,00	63	19	6	4	1	TVCL0400	**18,20**
4,50	63	19	6	4	1	TVCL0450	**19,82**
5,00	68	24	6	4	1	TVCL0500	**18,57**
5,50	68	24	6	4	1	TVCL0550	**20,43**
6,00	68	24	6	4	1	TVCL0600	**18,57**
7,00	80	30	10	4	1	TVCL0700	**23,74**
8,00	88	38	10	4	1	TVCL0800	**23,74**
9,00	88	38	10	4	1	TVCL0900	**27,84**
10,00	95	45	10	4	1	TVCL1000	**27,84**
11,00	102	45	12	4	1	TVCL1100	**34,35**
12,00	110	53	12	4	1	TVCL1200	**34,35**
13,00	110	53	12	4	1	TVCL1300	**40,97**
14,00	110	53	12	4	1	TVCL1400	**40,18**
15,00	110	53	12	4	1	TVCL1500	**47,89**
16,00	123	63	16	4	1	TVCL1600	**47,89**
18,00	123	63	16	4	1	TVCL1800	**55,62**
20,00	141	75	20	4	1	TVCL2000	**67,86**
22,00	141	75	20	5	1	TVCL2200	**89,35**
24,00	166	90	25	5	1	TVCL2400	**109,36**
25,00	166	90	25	5	1	TVCL2500	**115,80**
26,00	166	90	25	5	1	TVCL2600	**128,15**
28,00	166	90	25	5	1	TVCL2800	**130,64**
30,00	166	90	25	5	1	TVCL3000	**147,05**
32,00	186	106	32	6	1	TVCL3200	**151,91**
36,00	186	106	32	6	1	TVCL3600	**273,40**
40,00	205	125	32 *	6	1	TVCL400032	**369,85**

* d≠ DIN844

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
	≤ 600 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 850 N/mm²	1xD	0,1xD	39	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
ACERO	≤ 1100 N/mm²	1xD	0,1xD	24	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 900 N/mm²	1xD	0,1xD	30	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	> 1100 N/mm²	1xD	0,1xD	20	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	15	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
F	< 240 HB	1xD	0,1xD	35	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	12	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077

FRESA FRONTAL ACABADO VARIOS DIENTES -TIALN

NZ FINISHING STRAIGHT SHANK END MILLS-TIALN

FRAISES QUEUE CYLINDRIQUE FINITION NZ- TIALN

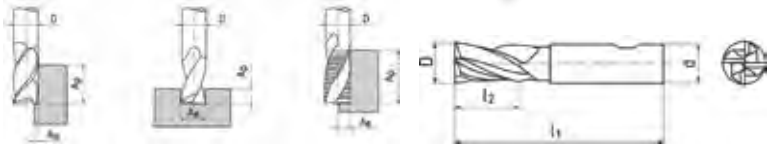
NEW



ACERO | F | INOX | TI

HSS-CO 8% | TIALN | DIN 844N

3Z-6Z | DIN 1835B | N



Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	51	7	6	3	1	TVC0200T	**18,98**
2,50	52	8	6	3	1	TVC0250T	**19,49**
3,00	52	8	6	4	1	TVC0300T	**18,48**
3,50	55	11	6	4	1	TVC0350T	**20,55**
4,00	55	11	6	4	1	TVC0400T	**19,52**
4,50	57	13	6	4	1	TVC0450T	**21,58**
5,00	57	13	6	4	1	TVC0500T	**20,57**
5,50	57	13	6	4	1	TVC0550T	**22,62**
6,00	57	13	6	4	1	TVC0600T	**21,61**
6,50	66	16	10	4	1	TVC0650T	**28,35**
7,00	66	16	10	4	1	TVC0700T	**26,90**
7,50	66	16	10	4	1	TVC0750T	**29,39**
8,00	69	19	10	4	1	TVC0800T	**28,03**
8,50	69	19	10	4	1	TVC0850T	**34,30**
9,00	69	19	10	4	1	TVC0900T	**32,52**
9,50	69	19	10	4	1	TVC0950T	**35,35**
10,00	72	22	10	4	1	TVC1000T	**31,71**
11,00	79	22	12	4	1	TVC1100T	**39,11**
12,00	83	26	12	4	1	TVC1200T	**37,54**
13,00	83	26	12	4	1	TVC1300T	**45,85**
14,00	83	26	12	4	1	TVC1400T	**46,90**
15,00	83	26	12	4	1	TVC1500T	**54,08**
16,00	92	32	16	4	1	TVC1600T	**55,12**
17,00	92	32	16	4	1	TVC1700T	**65,13**
18,00	92	32	16	4	1	TVC1800T	**66,17**
20,00	104	38	20	4	1	TVC2000T	**76,58**
22,00	104	38	20	5	1	TVC2200T	**100,55**
24,00	121	45	25	5	1	TVC2400T	**121,95**
25,00	121	45	25	5	1	TVC2500T	**126,74**
26,00	121	45	25	5	1	TVC2600T	**140,69**
28,00	121	45	25	5	1	TVC2800T	**148,44**
30,00	121	45	25	5	1	TVC3000T	**159,10**
32,00	133	53	32	6	1	TVC3200T	**172,00**
35,00	133	53	32	6	1	TVC3500T	**265,15**
36,00	133	53	32	6	1	TVC3600T	**260,01**
40,00	143	63	32*	6	1	TVC400032T	**321,23**

* d≠ DIN844

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Dureté*	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40
	≤ 600 N/mm²	1xD	0,1xD	67,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 850 N/mm²	1xD	0,1xD	58,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
ACERO	≤ 1100 N/mm²	1xD	0,1xD	36	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 900 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	> 1100 N/mm²	1xD	0,1xD	30	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	22,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
F	< 240 HB	1xD	0,1xD	52,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	18	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077

FRESA DESBASTE GRUESO - VARIOS DIENTES
NZ COARSE ROUGHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE EBAUCHE NZ

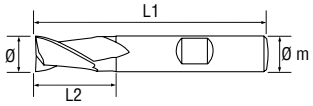


ACERO · INOX · F

HSS-CO 8% · DIN 844NR · 4Z-5Z

DIN 1835B · 30° · NR





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	57	13	6	4	1	TVG0600	**41,09**
8,00	69	19	10	4	1	TVG0800	**43,24**
10,00	72	22	10	4	1	TVG1000	**43,63**
12,00	83	26	12	4	1	TVG1200	**51,39**
14,00	83	26	12	4	1	TVG1400	**60,39**
16,00	92	32	16	4	1	TVG1600	**70,85**
18,00	92	32	16	4	1	TVG1800	**78,19**
20,00	104	38	20	4	1	TVG2000	**98,06**
22,00	104	38	20	5	1	TVG2200	**115,34**
24,00	121	45	25	5	1	TVG2400	**145,21**
25,00	121	45	25	5	1	TVG2500	**144,05**

FRESA LARGA DESBASTE GRUESO - VARIOS DIENTES
NEW
NZ COARSE ROUGHING STRAIGHT SHANK LONG END MILL
FRAISES LONGUE QUEUE CYLINDRIQUE EBAUCHE NZ

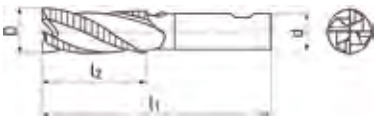


ACERO · INOX · F

HSS-CO 8% · DIN 844NR · 4Z-6Z

DIN 1835B · 30° · NR





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	68	24	6	4	1	TVGL0600	**37,18**
7,00	80	30	10	4	1	TVGL0700	**40,91**
8,00	88	38	10	4	1	TVGL0800	**40,91**
9,00	88	38	10	4	1	TVGL0900	**46,60**
10,00	95	45	10	4	1	TVGL1000	**46,60**
11,00	102	45	12	4	1	TVGL1100	**54,75**
12,00	110	53	12	4	1	TVGL1200	**54,75**
14,00	110	53	12	4	1	TVGL1400	**66,42**
15,00	110	53	12	4	1	TVGL1500	**77,39**
16,00	123	63	16	4	1	TVGL1600	**77,39**
18,00	123	63	16	4	1	TVGL1800	**95,53**
20,00	141	75	20	4	1	TVGL2000	**114,73**
22,00	141	75	20	5	1	TVGL2200	**140,67**
24,00	166	90	25	5	1	TVGL2400	**171,95**
25,00	166	90	25	5	1	TVGL2500	**168,57**
26,00	166	90	25	5	1	TVGL2600	**214,30**
28,00	166	90	25	5	1	TVGL2800	**216,74**
30,00	166	90	25	5	1	TVGL3000	**252,86**
32,00	186	106	32	6	1	TVGL3200	**284,55**
36,00	186	106	32	6	1	TVGL3600	**327,07**
40,00	205	125	32*	6	1	TVGL400032	**409,55**

* d≠ DIN844

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe* **(TVG Y TVGL)**

					fz(mm/z)									
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc**	**Ø 6**	**Ø 8**	**Ø 10**	**Ø 12**	**Ø 16**	**Ø 18**	**Ø 20**	**Ø 25**	**Ø 30**	**Ø 40**
ACERO	≤ 600 N/mm²	1,5xD	0,5xD	45	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
	≤ 850 N/mm²	1,5xD	0,5xD	39	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
	≤ 900 N/mm²	1,5xD	0,5xD	30	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
INOX	750 - 850 N/mm²	1,5xD	0,5xD	15	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
F	< 240 HB	1,5xD	0,5xD	35	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14

FRESA DESBASTE FINO - VARIOS DIENTES
NZ FINE PITCH ROUGHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE EBAUCHE PAS FIN NZ

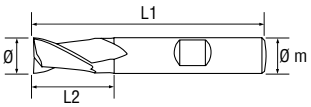


ACERO · INOX · F

HSS-CO 8% · DIN 844NR-F · 3Z-5Z

DIN 1835B · 30° · NR-F





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	57	13	6	4	1	TVF0600	**46,32**
8,00	69	19	10	4	1	TVF0800	**48,21**
10,00	72	22	10	4	1	TVF1000	**48,42**
12,00	83	26	12	4	1	TVF1200	**57,66**
14,00	83	26	12	4	1	TVF1400	**67,07**
16,00	92	32	16	4	1	TVF1600	**78,69**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 600 N/mm²	1,5xD	0,5xD	45	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 850 N/mm²	1,5xD	0,5xD	39	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 900 N/mm²	1,5xD	0,5xD	30	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 1100 N/mm²	1,5xD	0,5xD	24	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
INOX	750 - 850 N/mm²	1,5xD	0,5xD	15	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
F	< 240 HB	1,5xD	0,5xD	35	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12

FRESA DESBASTE GRUESO - VARIOS DIENTES - RECOMENDADO PARA MATERIALES DUROS
NZ COARSE ROUGHING STRAIGHT SHANK END MILLS - RECOMMENDED FOR HARD MATERIALS
FRAISES QUEUE CYLINDRIQUE EBAUCHE NZ - RECOMMANDÉ POUR MATÉRIAUX DURS

NEW

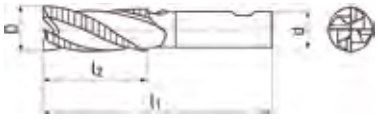


ACERO · F · INOX · TI

PM · ALTIN · DIN 844HR · 4Z-6Z

DIN 1835B · 30° · HR





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
9,00	69	19	10	5	1	TVGH0900PM	**72,46**
10,00	72	22	10	5	1	TVGH1000PM	**76,20**
11,00	79	22	12	5	1	TVGH1100PM	**84,62**
12,00	83	26	12	5	1	TVGH1200PM	**89,64**
13,00	83	26	12	5	1	TVGH1300PM	**99,75**
14,00	83	26	12	5	1	TVGH1400PM	**106,26**
15,00	83	26	12	5	1	TVGH1500PM	**116,93**
16,00	92	32	16	5	1	TVGH1600PM	**125,41**
18,00	92	32	16	5	1	TVGH1800PM	**148,10**
20,00	104	38	20	5	1	TVGH2000PM	**181,93**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	> 1100 N/mm²	1,5xD	0,5xD	51	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
INOX	750 - 850 N/mm²	1,5xD	0,5xD	37,5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
F	> 240 HB	1,5xD	0,5xD	66	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
TI	≤ 1500 N/mm²	1,5xD	0,5xD	31.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
	≤ 1250 N/mm²	1,5xD	0,5xD	30	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924

FRESA DESBASTE FINO - VARIOS DIENTES-PM - RECOMENDADO PARA MATERIALES DUROS

***NZ FINE PITCH ROUGHING STRAIGHT SHANK END MILLS-PM** - RECOMMENDED FOR HARD MATERIALS*

***FRAISES QUEUE CYLINDRIQUE EBAUCHE PAS FIN NZ-PM** - RECOMMANDÉ POUR MATÉRIAUX DURS*

NEW

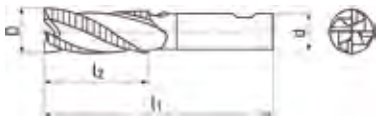


ACERO · F · INOX · TI

PM · ALTIN · 4Z-6Z · DIN 844HR-F

DIN 1835B · 30° · HR-F





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	
6,00	57	13	6	4	1	TVFH0600PM	**55,61**
8,00	69	19	10	4	1	TVFH0800PM	**63,78**
10,00	72	22	10	4	1	TVFH1000PM	**71,12**
11,00	79	22	12	4	1	TVFH1100PM	**86,34**
12,00	83	26	12	4	1	TVFH1200PM	**83,30**
13,00	83	26	12	4	1	TVFH1300PM	**91,13**
14,00	83	26	12	4	1	TVFH1400PM	**98,11**
15,00	83	26	12	4	1	TVFH1500PM	**110,81**
16,00	92	32	16	4	1	TVFH1600PM	**115,33**
17,00	92	32	16	4	1	TVFH1700PM	**131,93**
18,00	92	32	16	4	1	TVFH1800PM	**136,21**
20,00	104	38	20	4	1	TVFH2000PM	**172,50**
22,00	104	38	20	5	1	TVFH2200PM	**199,92**
25,00	121	45	25	5	1	TVFH2500PM	**242,23**
28,00	121	45	25	5	1	TVFH2800PM	**300,78**
30,00	121	45	25	5	1	TVFH3000PM	**346,06**
32,00	133	53	32	6	1	TVFH3200PM	**385,72**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	> 1100 N/mm²	1,5xD	0,5xD	51	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
INOX	750 - 850 N/mm²	1,5xD	0,5xD	37,5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
F	> 240 HB	1,5xD	0,5xD	66	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
TI	≤ 1500 N/mm²	1,5xD	0,5xD	31.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
	≤ 1250 N/mm²	1,5xD	0,5xD	30	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924

FRESA FRONTAL VARIOS DIENTES

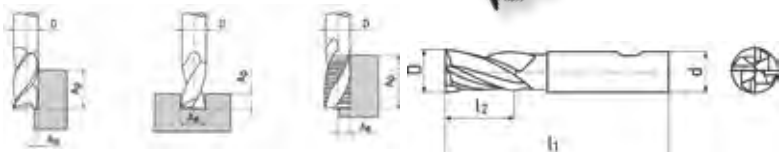
NEW

NZ FINISHING STRAIGHT SHANK END MILS
FRAISES QUEUE CYLINDRIQUE FINITION NZ

SPECIAL STAINLESS STEEL ESPECIAL INOX SPÉCIAL ACIER INOXYDABLE



ACERO INOX | PM | ALCrN | ESP | 4Z | DIN 1835B | 50° | N



Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / *Shank* (h6)	Z	Uds. / *Pcs.*	Cod.	
6,00	57	7	6	4	1	TVC0600PMC	**38,09**
8,00	65	9	8	4	1	TVC0800PMC	**55,68**
10,00	72	11	10	4	1	TVC1000PMC	**59,16**
12,00	83	13	12	4	1	TVC1200PMC	**73,27**
16,00	92	17	16	4	1	TVC1600PMC	**110,04**
20,00	104	21	20	4	1	TVC2000PMC	**151,19**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ae	Ap	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 20
	≤ 600 N/mm²	1xD	0,1xD	78	0.2	0.027	0.038	0.044	0.054	0.065
	≤ 850 N/mm²	1xD	0,1xD	78	0.2	0.027	0.038	0.044	0.054	0.065
	≤ 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
ACERO	≤ 900 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	> 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 750 N/mm²	1xD	0,1xD	60	0.018	0.024	0.03	0.036	0.042	0.054
INOX	750 - 850 N/mm²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054
	> 850 mm²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054

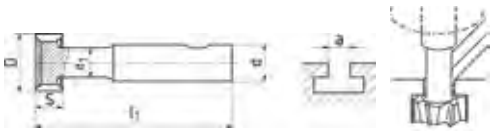
FRESA PARA RANURAS EN T

T SLOTS SHANK TOOL • FRAISE POUR RANURES À "T"

NEW



ACERO TI | HSS-CO 5% | DIN 851N | DIN 1835B | 10° | N



Ø mm (d11)	d (h6)	s (d11)	d1	l1	z	a	Uds. / *Pcs.*	Cod.	€/Unid.
11,00	4	10	53,5	6	4	5	1	T851N01100	**83,64**
12,50	6	10	57	6	5	6	1	T851N01250	**83,97**
16,00	8	12	62	6	7	8	1	T851N01600	**87,74**
18,00	8	12	70	6	8	10	1	T851N01800	**91,28**
21,00	9	12	74	6	10	12	1	T851N02100	**98,31**
25,00	11	16	82	8	12	14	1	T851N02500	**108,26**
32,00	14	16	90	8	15	18	1	T851N03200	**137,12**
40,00	18	25	108	10	19	22	1	T851N04000	**238,20**
50,00	22	32	124	10	25	28	1	T851N05000	**343,49**
60,00	28	32	139	10	30	36	1	T851N06000	**419,43**

Para recubrimiento TIALN, consultar / ***Request for TIALN coating*** / *Pour TIALN revêtement, nous consulter.*

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ae	Ap	Vc	fz(mm/z) Ø 21	Ø 25	Ø 40	Ø 50
	≤ 600 N/mm²	0,1xD	1xb	37.5	0.07	0.08	0.04	0.05
ACERO	≤ 850 N/mm²	0,1xD	1xb	32.5	0.07	0.08	0.04	0.05
	≤ 1100 N/mm²	0,1xD	1xb	18	0.07	0.08	0.04	0.05
TI	≤ 1250 N/mm²	0,1xD	1xb	9	0.049	0.056	0.028	0.035

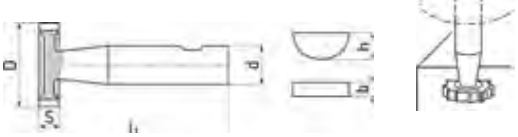
FRESA PARA RANURAS WOODRUFF

WOODRUFF SLOTS SHANK TOOL • FRAISE POUR RANURES WOODRUFF

NEW



ACERO · TI · HSS-CO 5% · DIN 850 · 6Z-12Z · DIN 1835B · 10°



Ø mm (h12)	d (h6)	s (e8)	l1	z	Uds. / *Pcs.*	Cod.	€/Unid.
4,50	6	1	50	6	1	T850045010	**56,61**
7,50	6	1,5	50	6	1	T850075015	**45,27**
7,50	6	2	50	6	1	T850075020	**45,27**
10,50	6	2	50	6	1	T850105020	**54,18**
10,50	6	2,5	50	6	1	T850105025	**54,18**
10,50	6	3	50	6	1	T850105030	**54,18**
13,50	10	2	56	6	1	T850135020	**56,80**
13,50	10	3	56	6	1	T850135030	**56,80**
13,50	10	4	56	6	1	T850135040	**56,80**
16,50	10	3	56	6	1	T850165030	**61,97**
16,50	10	4	56	6	1	T850165040	**61,97**
16,50	10	5	56	6	1	T850165050	**61,97**
19,50	10	3	63	8	1	T850195030	**76,08**
19,50	10	4	63	8	1	T850195040	**76,08**
19,50	10	5	63	8	1	T850195050	**76,08**
19,50	10	6	63	8	1	T850195060	**76,08**
22,50	10	4	63	8	1	T850225040	**86,21**
22,50	10	5	63	8	1	T850225050	**86,21**
22,50	10	6	63	8	1	T850225060	**86,21**
22,50	10	8	63	8	1	T850225080	**86,21**
25,50	10	5	63	10	1	T850255050	**96,42**
25,50	10	6	63	10	1	T850255060	**96,42**
28,50	10	6	63	10	1	T850285060	**97,70**
28,50	10	8	63	10	1	T850285080	**97,70**
28,50	12	10	71	10	1	T850285100	**97,70**
32,50	12	6	71	10	1	T850325060	**109,18**
32,50	12	7	71	10	1	T850325070	**109,18**
32,50	12	8	71	10	1	T850325080	**109,18**
32,50	12	10	71	10	1	T850325100	**109,18**
38,50	12	8	71	10	1	T850385080	**129,64**
45,50	12	8	71	12	1	T850455080	**154,97**
45,50	12	10	71	12	1	T850455100	**154,97**

Diámetros inferiores a 7,50 mm dentado no cruzado / *Diametros inferiores a 7,50.-mm dentado no cruzado* / *Diametros inferiores a 7,50.-mm dentado no cruzado*
Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

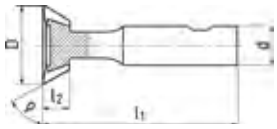
Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

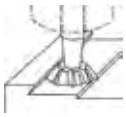
Material	Dureza / *Strength* / *Duretè*	Ae	Ap	Vc	fz(mm/z) Ø 7.5	Ø 16.5	Ø 22.5	Ø 32.5	Ø 45.5
ACERO	≤ 600 N/mm²	0,1xD	1xb	37.5	0.04	0.07	0.075	0.09	0.1
	≤ 850 N/mm²	0,1xD	1xb	32.5	0.04	0.07	0.075	0.09	0.1
	≤ 1100 N/mm²	0,1xD	1xb	18	0.04	0.07	0.075	0.09	0.1
TI	≤ 1250 N/mm²	0,1xD	1xb	9	0.028	0.049	0.0525	0.063	0.07

FRESA EN BISEL
DOVETAIL MILLING CUTTERS • *FRAISES ANGULAIRES*

NEW

ACERO · TI · HSS-CO 5% · DIN 1833C · 10Z-12Z · DIN 1835B







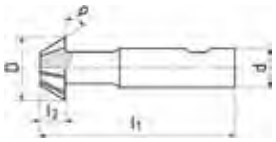
Pº (±30')	Ø mm (js16)	Ø Mango / *Shank* (h6)	L1	L2	Z	Uds. / *Pcs.*	Cod.	€/Unid.
45	**16,00**	12	60	4	10	1	T1833C4516	**66,24**
45	**20,00**	12	63	5	10	1	T1833C4520	**84,58**
45	**25,00**	12	67	6,3	10	1	T1833C4525	**105,49**
45	**32,00**	16	71	8	12	1	T1833C4532	**136,67**
45	**40,00**	16	80	10	12	1	T1833C4540	**230,04**
60	**16,00**	12	60	6,3	10	1	T1833C6016	**66,24**
60	**20,00**	12	63	8	10	1	T1833C6020	**84,58**
60	**25,00**	12	67	10	10	1	T1833C6025	**105,49**
60	**32,00**	16	71	12,5	12	1	T1833C6032	**136,67**
60	**40,00**	16	80	16	12	1	T1833C6040	**230,04**

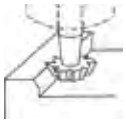
Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

FRESA EN BISEL
DOVETAIL MILLING CUTTERS • *FRAISES ANGULAIRES*

NEW

ACERO · TI · HSS-CO 5% · DIN 1833D · 10Z-12Z · DIN 1835B







Pº (±30')	Ø mm (js16)	Ø Mango / *Shank* (h6)	L1	L2	Z	Uds. / *Pcs.*	Cod.	€/Unid.
45	**16,00**	12	60	4	10	1	T1833D4516	**66,24**
45	**20,00**	12	63	5	10	1	T1833D4520	**84,58**
45	**25,00**	12	67	6,3	10	1	T1833D4525	**105,49**
45	**32,00**	16	71	8	12	1	T1833D4532	**113,89**
45	**40,00**	16	80	10	12	1	T1833D4540	**230,04**
60	**16,00**	12	60	6,3	10	1	T1833D6016	**66,24**
60	**20,00**	12	63	8	10	1	T1833D6020	**84,58**
60	**25,00**	12	67	10	10	1	T1833D6025	**105,49**

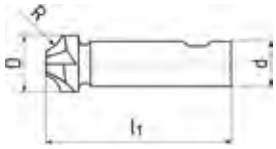
Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

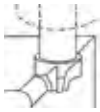
Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe* **(T1833C y T1833D)**

				fz(mm/z)			
Material	**Dureza** / ***Strength*** / *Duretè*	**Ae**	**Vc**	**Ø 16**	**Ø 20**	**Ø 25**	**Ø 32**
	≤ 600 N/mm²	1xb	37.5	0.07	0.075	0.08	0.09
ACERO	≤ 850 N/mm²	1xb	32.5	0.07	0.075	0.08	0.09
	≤ 1100 N/mm²	1xb	18	0.07	0.075	0.08	0.09
TI	≤ 1250 N/mm²	1xb	9	0.049	0.0525	0.056	0.063

FRESA RADIO
CORNER ROUNDING CUTTER • FRAISE A RAYON NEW

ACERO
TI
HSS-CO 8%
DIN 6518
4Z-6Z
DIN 1835B







R (H11)	Ø mm (js15)	Ø Mango / *Shank* (h6)	L1	Z	Uds. / *Pcs.*	Cod.	€/Unid.
1,00	8	10	60	4	1	T65180100	76,93
1,50	9	10	60	4	1	T65180150	83,99
1,60	9,2	10	60	4	1	T65180160	83,99
2,00	10	10	60	4	1	T65180200	83,99
2,50	11	10	60	4	1	T65180250	83,99
3,00	12	12	60	4	1	T65180300	87,32
3,50	13	12	60	4	1	T65180350	94,48
4,00	14	12	60	4	1	T65180400	94,48
4,50	15	12	60	4	1	T65180450	101,29
5,00	16	12	60	4	1	T65180500	101,29
5,50	19	16	67	4	1	T65180550	106,75
6,00	20	16	67	4	1	T65180600	106,75
6,50	21	16	71	4	1	T65180650	131,11
7,00	22	16	71	4	1	T65180700	131,11
7,50	23	16	71	4	1	T65180750	131,11
8,00	24	16	71	4	1	T65180800	131,11
8,50	25	25	85	4	1	T65180850	157,83
9,00	26	25	85	4	1	T65180900	157,83
9,50	27	25	85	4	1	T65180950	157,83
10,00	28	25	85	4	1	T65181000	157,83
10,50	31	25	90	4	1	T65181050	174,30
11,00	32	25	90	4	1	T65181100	174,30
12,00	34	25	90	4	1	T65181200	174,30
12,50	41	25	100	6	1	T65181250	244,04
13,00	42	25	100	6	1	T65181300	244,04
14,00	44	25	100	6	1	T65181400	244,04
15,00	46	25	100	6	1	T65181500	279,11
16,00	48	25	100	6	1	T65181600	279,11
18,00	52	32	112	6	1	T65181800	314,87
19,00	56	32	112	6	1	T65181900	349,04
20,00	56	32	112	6	1	T65182000	349,75

Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

Condiciones de corte / *Cutting conditions* / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ae	Ap	Vc	fz(mm/z) Ø 8	Ø 10	Ø 12	Ø 16	Ø 20
ACERO	≤ 600 N/mm²	1xR	1xR	45	0.04	0.05	0.06	0.065	0.07
	≤ 850 N/mm²	1xR	1xR	39	0.04	0.05	0.06	0.065	0.07
	≤ 1100 N/mm²	1xR	1xR	24	0.04	0.05	0.06	0.065	0.07
TI	≤ 1250 N/mm²	1xR	1xR	12	0.028	0.035	0.042	0.0455	0.049

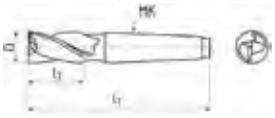
FRESA FRONTAL ACABADO DOS DIENTES MANGO CÓNICO

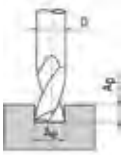
2 Z FINISHING TAPER SHANK END MILL • FRAISE QUEUE CONIQUE FINITION 2Z

NEW



ACERO · INOX · HSS-CO 5% · DIN 326N · 2Z · 25° · N





Ø mm (e8)	MK	L1	L2	Z	Uds. / *Pcs.*	Cod.	€/Unid.
12,00	1	85	14	2	1	TDMC1200	**53,77**
14,00	2	100	16	2	1	TDMC1400	**67,17**
16,00	2	105	18	2	1	TDMC1600	**74,41**
18,00	2	110	20	2	1	TDMC1800	**81,74**
20,00	2	115	20	2	1	TDMC2000	**89,07**
22,00	2	120	22	2	1	TDMC2200	**96,29**
24,00	3	140	25	2	1	TDMC2400	**115,11**
25,00	3	140	25	2	1	TDMC2500	**122,56**
28,00	3	145	28	2	1	TDMC2800	**132,73**
30,00	3	150	30	2	1	TDMC3000	**138,63**
32,00	4	175	32	2	1	TDMC3200	**150,94**
36,00	4	175	34	2	1	TDMC3600	**179,76**
40,00	4	180	38	2	1	TDMC4000	**228,41**
45,00	4	185	42	2	1	TDMC4500	**257,11**
50,00	5	220	45	2	1	TDMC5000	**313,99**

Para recubrimiento TIALN, consultar / *Request for TIALN coating* / *Pour TIALN revêtement, nous consulter.*

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 12	Ø 16	Ø 18	Ø 20
	≤ 600 N/mm²	0,5xD	1xD	45	0.044	0.058	0.065	0.073
ACERO	≤ 850 N/mm²	0,5xD	1xD	39	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.044	0.058	0.065	0.073

FRESA FRONTAL 4-8 DIENTES MANGO CÓNICO

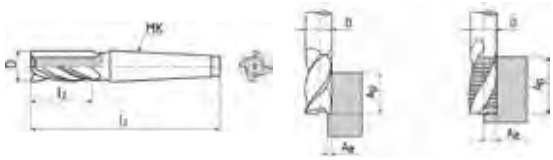
NEW

NZ TAPER SHANK END MILLS • FRAISE QUEUE CONIQUE NZ



ACERO · F · INOX · TI

HSS-CO 5% · DIN 845N · 4Z-8Z · 35° · N



Ø mm (e8)	MK	L1	L2	Z	Uds. / *Pcs.*	Cod.	€/Unid.
10,00	1	92	22	4	1	TVMC1000	**50,64**
12,00	2	111	26	4	1	TVMC1200	**51,73**
14,00	2	111	26	4	1	TVMC1400	**63,92**
16,00	2	117	32	4	1	TVMC1600	**71,43**
18,00	2	117	32	4	1	TVMC1800	**83,11**
20,00	2	123	38	4	1	TVMC2000	**90,21**
22,00	2	123	38	5	1	TVMC2200	**102,97**
24,00	3	147	45	5	1	TVMC2400	**119,38**
25,00	3	147	45	5	1	TVMC2500	**124,98**
26,00	3	147	45	5	1	TVMC2600	**132,19**
28,00	3	147	45	5	1	TVMC2800	**133,43**
30,00	3	147	45	6	1	TVMC3000	**143,35**
32,00	4	178	53	6	1	TVMC3200	**162,34**
36,00	4	178	53	6	1	TVMC3600	**198,97**
40,00	4	188	63	6	1	TVMC4000	**243,92**
45,00	4	188	63	6	1	TVMC4500	**307,15**
50,00	5	233	75	6	1	TVMC5000	**372,76**
56,00	5	233	75	8	1	TVMC5600	**521,29**
63,00	5	248	90	8	1	TVMC6300	**669,76**

Para recubrimiento TIALN, consultar / ***Request for TIALN coating*** / *Pour TIALN revêtement, nous consulter.*

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
	≤ 600 N/mm²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
ACERO	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 900 N/mm²	1xD	0,1xD	25	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	> 1100 N/mm²	1xD	0,1xD	16	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091
F	> 240 HB	1xD	0,1xD	22	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
INOX	750 - 850 N/mm²	1xD	0,1xD	10	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
TI	≤ 1500 N/mm²	1xD	0,1xD	8	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091

FRESA FRONTAL LARGA 4-8 DIENTES MANGO CONICO

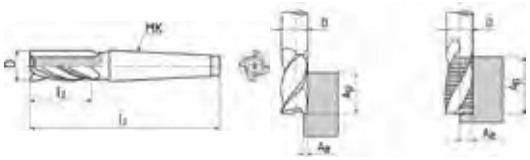
LONG NZ TAPER SHANK END MILLS • FRAISE QUEUE CONIQUE NZ LONGUE

NEW



ACERO · F · INOX · TI

HSS-CO 5% · DIN 845N · 4Z-8Z · 35° · N



Ø mm (e8)	MK	L1	L2	Z	Uds. / *Pcs.*	Cod.	€/Unid.
10,00	1	115	45	4	1	TVMCL1000	**67,70**
12,00	2	138	53	4	1	TVMCL1200	**69,26**
14,00	2	138	53	4	1	TVMCL1400	**85,51**
16,00	2	148	63	4	1	TVMCL1600	**93,58**
18,00	2	148	63	4	1	TVMCL1800	**105,78**
20,00	2	160	75	4	1	TVMCL2000	**114,83**
22,00	2	160	75	5	1	TVMCL2200	**136,17**
24,00	3	192	90	5	1	TVMCL2400	**152,08**
25,00	3	192	90	5	1	TVMCL2500	**160,49**
26,00	3	192	90	5	1	TVMCL2600	**200,55**
28,00	3	192	90	5	1	TVMCL2800	**213,75**
30,00	3	192	90	6	1	TVMCL3000	**229,62**
32,00	4	231	106	6	1	TVMCL3200	**263,17**
36,00	4	231	106	6	1	TVMCL3600	**292,90**
40,00	4	250	125	6	1	TVMCL4000	**322,61**
45,00	4	250	125	6	1	TVMCL4500	**407,89**
50,00	5	308	150	6	1	TVMCL5000	**492,99**
56,00	5	308	150	8	1	TVMCL5600	**723,86**
63,00	5	338	180	8	1	TVMCL6300	**930,06**

Para recubrimiento TIALN, consultar / ***Request for TIALN coating*** / *Pour TIALN revêtement, nous consulter.*

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc	fz(mm/z) Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
	≤ 600 N/mm²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
ACERO	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 900 N/mm²	1xD	0,1xD	25	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	> 1100 N/mm²	1xD	0,1xD	16	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091
F	> 240 HB	1xD	0,1xD	22	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
INOX	750 - 850 N/mm²	1xD	0,1xD	10	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
TI	≤ 1500 N/mm²	1xD	0,1xD	8	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091

FRESA FRONTAL ACABADO AGUJERO
FINISHING END MILLING CUTTER • FRAISE À TROU FINITION

NEW

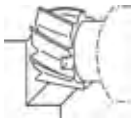


ACERO F INOX

HSS-CO 5% | DIN 1880N | 6Z-14Z

DIN 138 | 30° | N





Ø mm (js16)	d (H7)	L1	Z	Uds. / *Pcs.*	Cod.	€/Unid.
40,00	16	32	6	1	T1880N040	**137,15**
50,00	22	36	8	1	T1880N050	**174,51**
63,00	27	40	8	1	T1880N063	**237,12**
80,00	27	45	10	1	T1880N080	**347,98**
100,00	32	50	10	1	T1880N100	**552,17**
125,00	40	56	14	1	T1880N125	**844,50**

FRESA FRONTAL ACABADO AGUJERO-TIALN
FINISHING END MILLS-TIALN • FRAISE À TROU FINITION-TIALN

NEW

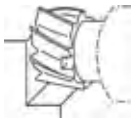


ACERO F INOX

HSS-CO 5% | TIALN | DIN 1880N | 6Z-14Z

DIN 138 | 30° | N





Ø mm (js16)	d (H7)	L1	Z	Uds. / *Pcs.*	Cod.	€/Unid.
40,00	16	32	6	1	T1880N040T	**197,59**
50,00	22	36	8	1	T1880N050T	**244,36**
63,00	27	40	8	1	T1880N063T	**325,45**
80,00	27	45	10	1	T1880N080T	**462,54**
100,00	32	50	10	1	T1880N100T	**718,39**
125,00	40	56	14	1	T1880N125T	**968,84**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

						fz(mm/z)			
Material	**Dureza** / ***Strength*** / *Duretè*	**Ap**	**Ae**	**Vc HSSCO 5%**	**Vc TIALN**	**Ø 40**	**Ø 50**	**Ø 80**	**Ø 100**
	≤ 600 N/mm²	0,05xD	0,75xD	37,50	56,25	0.08	0.085	0.11	0.11
	≤ 850 N/mm²	0,05xD	0,75xD	32,50	48,75	0.08	0.085	0.11	0.11
ACERO	≤ 1100 N/mm²	0,05xD	0,75xD	18,00	27	0.08	0.085	0.11	0.11
	≤ 900 N/mm²	0,05xD	0,75xD	25,00	37,5	0.08	0.085	0.11	0.11
	≤ 1100 N/mm²	0,05xD	0,75xD	18,00	27	0.08	0.085	0.11	0.11
INOX	750 - 850 N/mm²	0,05xD	0,75xD	10,00	15	0.08	0.085	0.11	0.11
F	> 240 HB	0,05xD	0,75xD	22,00	33	0.08	0.085	0.11	0.11

FRESA FRONTAL DESBASTE AGUJERO
ROUGHING END MILLS • FRAISE À TROU EBAUCHE

NEW



ACERO · F · INOX

HSS-CO 5% · DIN 1880N · 6Z-10Z

DIN 138 · 30° · NR





Ø mm (js16)	d (H7)	L1	Z	Uds. / *Pcs.*	Cod.	€/Unid.
40,00	16	32	6	1	T1880NR040	**203,30**
50,00	22	36	8	1	T1880NR050	**252,62**
63,00	27	40	8	1	T1880NR063	**320,49**
80,00	27	45	10	1	T1880NR080	**445,63**
100,00	32	50	10	1	T1880NR100	**691,68**

FRESA FRONTAL DESBASTE AGUJERO - TIALN
ROUGHING END MILLS - TIALN • FRAISE À TROU EBAUCHE - TIALN

NEW

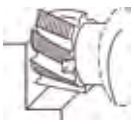


ACERO · F · INOX

HSS-CO 5% · TIALN · DIN 1880N · 6Z-10Z

DIN 138 · 30° · NR





Ø mm (js16)	d (H7)	L1	Z	Uds. / *Pcs.*	Cod.	€/Unid.
40,00	16	32	6	1	T1880NR040T	**273,57**
50,00	22	36	8	1	T1880NR050T	**334,32**
63,00	27	40	8	1	T1880NR063T	**423,08**
80,00	27	45	10	1	T1880NR080T	**578,59**
100,00	32	50	10	1	T1880NR100T	**885,62**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

Material	Dureza / *Strength* / *Duretè*	Ap	Ae	Vc HSSCO 5%	Vc TIALN	fz(mm/z) Ø 40	Ø 50	Ø 80	Ø 100
	≤ 600 N/mm²	0,05xD	0,75xD	45,00	67.5	0.08	0.085	0.11	0.11
ACERO	≤ 850 N/mm²	0,05xD	0,75xD	39,00	58.5	0.08	0.085	0.11	0.11
	≤ 900 N/mm²	0,05xD	0,75xD	30,00	45	0.08	0.085	0.11	0.11
INOX	750 - 850 N/mm²	0,05xD	0,75xD	15,00	22.5	0.08	0.085	0.11	0.11
F	> 240 HB	0,05xD	0,75xD	25,00	37.5	0.08	0.085	0.11	0.11

FRESA 3 CORTES DENTADO FINO CRUZADO - RECOMENDADO PARA MATERIALES DUROS

NEW

SIDE AND FACE MILLING CUTTERS FINE TEETH - RECOMMENDED FOR HARD MATERIALS

FRAISE CIRCULAIRES 3 TAILLES DENTURE FINE - RECOMMANDÉ POUR MATÉRIAUX DURS



ACERO · INOX · F · CU

HSS-CO 5% · DIN 885A · DIN 138 · N





Ø mm (js16)	s (k11)	d (H7)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
50	4	16	16	1	T885A05004	**112,49**
50	5	16	16	1	T885A05005	**113,30**
50	6	16	16	1	T885A05006	**119,29**
50	8	16	16	1	T885A05008	**128,11**
50	10	16	16	1	T885A05010	**140,33**
63	4	16	18	1	T885A06304	**125,81**
63	5	22	18	1	T885A06305	**129,65**
63	6	22	18	1	T885A06306	**135,13**
63	8	22	18	1	T885A06308	**145,46**
63	10	22	18	1	T885A06310	**162,37**
63	12	22	18	1	T885A06312	**184,30**
63	14	22	18	1	T885A06314	**206,99**
63	16	22	18	1	T885A06316	**220,24**
80	4	27	20	1	T885A08004	**156,44**
80	5	27	20	1	T885A08005	**163,07**
80	6	27	20	1	T885A08006	**172,12**
80	8	27	20	1	T885A08008	**182,68**
80	10	27	18	1	T885A08010	**187,27**
80	12	27	18	1	T885A08012	**210,92**
80	14	27	18	1	T885A08014	**243,75**
80	16	27	18	1	T885A08016	**264,06**
80	18	27	18	1	T885A08018	**304,43**
80	20	27	18	1	T885A08020	**304,63**
100	4	32	20	1	T885A10004	**176,37**
100	5	32	20	1	T885A10005	**184,44**
100	6	32	20	1	T885A10006	**204,25**
100	8	32	20	1	T885A10008	**226,85**
100	10	32	20	1	T885A10010	**262,99**
100	12	32	20	1	T885A10012	**283,58**
100	14	32	20	1	T885A10014	**316,35**
100	16	32	20	1	T885A10016	**333,59**
100	18	32	20	1	T885A10018	**392,15**
100	20	32	20	1	T885A10020	**394,67**
100	25	32	20	1	T885A10025	**488,51**
125	5	32	24	1	T885A12505	**220,12**
125	6	32	24	1	T885A12506	**241,20**
125	8	32	24	1	T885A12508	**272,83**
125	10	32	22	1	T885A12510	**314,78**
125	12	32	22	1	T885A12512	**375,43**
125	14	32	22	1	T885A12514	**423,04**
125	16	32	22	1	T885A12516	**438,56**
125	18	32	22	1	T885A12518	**505,16**
125	20	32	22	1	T885A12520	**515,69**
125	25	32	22	1	T885A12525	**617,46**
125	28	32	22	1	T885A12528	**663,93**
160	6	40	26	1	T885A16006	**359,28**
160	8	40	26	1	T885A16008	**409,92**
160	10	40	26	1	T885A16010	**447,90**
160	12	40	26	1	T885A16012	**487,60**
160	14	40	26	1	T885A16014	**606,81**
160	16	40	26	1	T885A16016	**652,90**
160	18	40	26	1	T885A16018	**731,29**
160	20	40	26	1	T885A16020	**809,85**
160	25	40	26	1	T885A16025	**895,97**
160	32	40	26	1	T885A16032	**1126,44**

FRESA 3 CORTES DENTADO FINO CRUZADO - RECOMENDADO PARA MATERIALES DUROS

NEW

SIDE AND FACE MILLING CUTTERS FINE TEETH - RECOMMENDED FOR HARD MATERIALS

FRAISE CIRCULAIRES 3 TAILLES DENTURE FINE - RECOMMANDÉ POUR MATÉRIAUX DURS



ACERO · INOX · F · CU · HSS-CO 5% · DIN 885A · DIN 138 · N





Ø mm (js16)	s (k11)	d (H7)	Z	Uds. / *Pcs.*	Cod.	€/Unid.
200	8	40	32	1	T885A20008	**636,14**
200	10	40	32	1	T885A20010	**686,87**
200	12	40	32	1	T885A20012	**774,95**
200	14	40	32	1	T885A20014	**876,05**
200	16	40	32	1	T885A20016	**897,36**
200	18	40	32	1	T885A20018	**981,83**
200	20	40	32	1	T885A20020	**1002,21**
200	25	40	32	1	T885A20025	**1216,52**
200	32	40	32	1	T885A20032	**1538,31**

Condiciones de corte / ***Cutting conditions*** / *Conditions de coupe*

					fz(mm/z)				
Material	**Dureza** / ***Strength*** / *Duretè*	**Ae**	**Ap**	**Vc**	**Ø 50**	**Ø 80**	**Ø 100**	**Ø 160**	**Ø 200**
ACERO	≤ 600 N/mm²	0,1xD	1xb	37.5	0.05	0.07	0.08	0.09	0.09
	≤ 850 N/mm²	0,1xD	1xb	32.5	0.05	0.07	0.08	0.09	0.09
	≤ 900 N/mm²	0,1xD	1xb	25	0.05	0.07	0.08	0.09	0.09
	≤ 1100 N/mm²	0,1xD	1xb	18	0.05	0.07	0.08	0.09	0.09
F	< 240 HB	0,1xD	1xb	30	0.05	0.07	0.08	0.09	0.09
	> 240 HB	0,1xD	1xb	22	0.05	0.07	0.08	0.09	0.09
INOX	750 - 850 N/mm²	0,1xD	1xb	10	0.05	0.07	0.08	0.09	0.09
CU	≤ 800 N/mm²	0,1xD	1xb	60-100	0.05	0.07	0.08	0.09	0.09

ESTUCHES DE FRESAS CON MANGO CILÍNDRICO

STRAIGHT SHANK END MILLS SET • COFFRETS DE FRAISES DE QUEUE CYLINDRIQUE

FRESA FRONTAL DOS DIENTES PARA ALUMINIO

NEW

2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM

FRAISES QUEUE CYLINDRIQUE 2Z POUR ALUMINIUM



Ref		
TDW0400, TDW0500, TDW0600, TDW0800, TDW1000, TDW1200		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
6	TDW0601	**126,29 €**

*Medidas y condiciones de Corte en pag.193 / *Cutting conditions and sizes in pag.193 / Condition de coupe et dimensions a la pag.193*

FRESA FRONTAL ACABADO DOS DIENTES

NEW

2Z FINISHING STRAIGHT SHANK END MILLS

FRAISES QUEUE CYLINDRIQUE FINITION 2Z



Ref		
TDC0400, TDC0500, TDC0600, TDC0800, TDC1000, TDC1200		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
6	TDC0601	**107,80 €**

*Medidas y condiciones de Corte en pag.195 / *Cutting conditions and sizes in pag.195 / Condition de coupe et dimensions a la pag.195*

FRESA FRONTAL ACABADO DOS DIENTES-TIALN

NEW

2Z FINISHING STRAIGHT SHANK END MILLS- TIALN

FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN



Ref		
TDC0400T, TDC0500T, TDC0600T, TDC0800T, TDC1000T, TDC1200T		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
6	TDC0601T	**158,19 €**

*Medidas y condiciones de Corte en pag.197-198 / *Cutting conditions and sizes in pag.197-198 / Condition de coupe et dimensions a la pag.197-198*

FRESA FRONTAL RADIAL ACABADO - DOS DIENTES

NEW

2Z FINISHING RADIAL STRAIGHT SHANK END MILLS

FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z



Ref		
TRC0400, TRC0500, TRC0600, TRC0800, TRC1000, TRC1200		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
6	TRC0601	**200,25 €**

*Medidas y condiciones de Corte en pag.199 / *Cutting conditions and sizes in pag.199 / Condition de coupe et dimensions a la pag.199*

FRESA FRONTAL RADIAL ACABADO - DOS DIENTES PM ALTIN

NEW

2Z FINISHING RADIAL STRAIGHT SHANK END MILLS PM ALTIN

FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z PM ALTIN



Ref		
TRC0400PM, TRC0500PM, TRC0600PM, TRC0800PM, TRC1000PM, TRC1200PM		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
6	TRC0601PM	**284,99 €**

*Medidas y condiciones de Corte en pag.199 / *Cutting conditions and sizes in pag.199 / Condition de coupe et dimensions a la pag.199*

FRESA FRONTAL ACABADO VARIOS DIENTES

NEW

NZ FINISHING STRAIGHT SHANK END MILS

FRAISES QUEUE CYLINDRIQUE FINITION NZ



Ref		
TVC0400, TVC0500, TVC0600, TVC0800, TVC1000, TVC1200		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
6	TVC0601	**120,49 €**

*Medidas y condiciones de Corte en pag.200 / *Cutting conditions and sizes in pag.200 / Condition de coupe et dimensions a la pag.200*

FRESA FRONTAL ACABADO VARIOS DIENTES TIALN

NEW

NZ FINISHING STRAIGHT SHANK END MILS TIALN

FRAISES QUEUE CYLINDRIQUE FINITION NZ TIALN



Ref		
TVC0400T, TVC0500T, TVC0600T, TVC0800T, TVC1000T, TVC1200T		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
6	TVC0601T	**158,98 €**

*Medidas y condiciones de Corte en pag.202 / *Cutting conditions and sizes in pag.202 / Condition de coupe et dimensions a la pag.202*

NOVEDADES N

- Machos máquina PM+HL especial INOX
- Machos máquina MULTIMATERIAL
- Machos máquina PM+FUTURA para materiales DUROS
- Machos máquina ALUSPEED para ALUMINIO
- Ampliación gama KITS reparadores de roscado

NEW FEATURES N

- ***PM+HL machine taps special STAINLESS STEEL***
- ***MULTIMATERIAL machine taps***
- ***PM+FUTURA machine taps for HARD materials***
- ***ALUSPEED machine taps for ALUMINIUM***
- ***Enlargement of threading reparir KITS***

NOUVEAUTÉS N

- ***PM+HL tarauds machine spécial ACIER INOXYDABLE***
- ***MULTIMATERIEL tarauds machine***
- ***PM+FUTURA tarauds machine pour matériaux DURS***
- ***ALUSPEED tarauds machine pour L'ALUMINIUM***
- ***Elargissement de KITS de réparation de filetage***



THREADING-FILETAGE





ROSCADO

SESA TOOLS®

TABLA DE ROSCAS Y PASOS EN PULGADAS
TABLE OF THREADS AND PICHES IN INCHES
TABLE DES FILLETAGES ET PAS EN POUCES

	WHITWORTH 55°				UN 60°		
	CILÍNDRICAS / *CYLINDRICAL*			CÓNICA / *TAPPER*	CILÍNDRICAS / *CYLINDRICAL*		
Ø	BSW	BSF	G(BSP)	BSPT	NPS	NPSF	UNC
Nº 0	-	-	-	-	-	-	-
Nº 1	-	-	-	-	-	-	64
Nº 2	-	-	-	-	-	-	56
Nº 3	-	-	-	-	-	-	48
Nº 4	-	-	-	-	-	-	40
Nº 5	-	-	-	-	-	-	40
Nº 6	-	-	-	-	-	-	32
Nº 8	-	-	-	-	-	-	32
Nº 10	-	-	-	-	-	-	24
Nº 12	-	-	-	-	-	-	24
1/16	60	-	-	-	-	-	-
5/64	56	-	-	-	-	-	-
3/32	48	-	-	-	-	-	-
7/64	48	-	-	-	-	-	-
1/8	40	-	28	28	27	27	32
9/64	-	-	-	-	-	-	-
5/32	32	-	-	-	-	-	32
11/64	32	-	-	-	-	-	-
3/16	24	32	-	-			24
13/63	24	-	-	-	-	-	-
7/32	24	28	-	-	-	-	-
15/64	24	-	-	-	-	-	-
1/4	20	26	19	19	18	18	20
9/32	20	-	-	-	-	-	-
5/16	18	22	-	-	-	-	18
11/32	18	20	-	-	-	-	-
3/8	16	20	19	19	18	18	16
13/32	16	20	-	-	-	-	-
7/16	14	18	-	-	-	-	14
15/32	14	-	-	-	-	-	-
1/2	12	16	14	14	14	14	13
9/16	12	16	-	-	-	-	12
5/8	11	14	14	14	-	-	11
11/16	11	14	-	-	-	-	11
3/4	10	12	14	14	14	14	10
13/16	10	12	-	-	-	-	-
7/8	9	11	14	14	-	-	9
15/16	9	11	-	-	-	-	-
1"	8	10	11	11	11,5	-	8
1" 1/16	8	-	-	-	-	-	-
1" 1/8	7	9	11	11	11,5	-	7
1" 3/16	7	-	-	-	-	-	-
1" 1/4	7	9	11	11	-	-	7
1" 3/8	6	8	11	11	-	-	6
1" 1/2	6	8	11	11	11,5	-	6
1" 5/8	5	8	11	11	-	-	5
1" 3/4	5	7	11	11	-	-	5
1" 7/8	4,5	7	11	11	-	-	4,5
2"	4,5	7	11	11	11,5	-	4,5
2" 1/4	4	6	11	11	-	-	4,5
2" 1/2	4	6	11	11	8	-	4
2" 3/4	3,5	6	11	11	-	-	4
3"	3,5	5	11	11	8	-	4
3" 1/2	-	-	11	-	8	-	-
4"	-	-	11	-	8	-	-

UN 60°				UNS 60°	
CILÍNDRICAS / *CYLINDRICAL*		CÓNICA / *TAPPER*		CILÍNDRICAS / *CYLINDRICAL*	
UNF	UNEF	NPT API	NPTF	UN	UNS
80	-	-	-	-	-
72	-	-	-	-	-
64	-	-	-	-	-
56	-	-	-	-	-
48	-	-	-	-	-
44	-	-	-	-	-
40	-	-	-	-	-
36	-	-	-	-	-
32	-	-	-	-	-
28	-	-	-	-	-
-	-	27	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	27	27	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
32	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
28	32	18	18	-	24 - 27 - 36 - 40 - 48 - 56
-	-	-	-	-	-
24	32	-	-	20 - 28	27 - 36 - 40 - 48
-	-	-	-	-	-
24	32	18	18	20 - 28	18 - 27 - 36 - 40
-	-	-	-	-	-
20	28	-	-	16 - 32	18 - 24 - 27
-	-	-	-	-	-
20	28	14	14	16 - 32	12 - 14 - 18 - 24 - 27
18	24	-	-	16 - 20 - 28 - 32	14 - 27
18	24	14	-	12 - 16 - 20 - 28 - 32	14 - 27
-	24	-	-	12 - 16 - 20 - 28 - 32	-
16	24	14	14	12 - 28 - 32	14 - 18 - 24 - 27
-	20	-	-	-	-
14	20	-	-	12 - 16 - 28 - 32	10 - 18 - 24 - 27
-	20	-	-	-	-
14 y 12	20	-	-	16 - 28 - 32	10 - 14 - 18 - 24 - 27
-	20	-	-	-	-
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
-	18	-	-	-	-
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
-	18	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 24
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

EQUIVALENCIAS DE PULGADAS EN MM

EQUIVALENTS OF INCHES IN MM • ÉQUIVALENCES DES POUCES EN MM

BSW

Ø (")	Paso *Pitch*	Ø (mm)	Ø (")	Paso *Pitch*	Ø (mm)
1/16	60	1,587	**7/8**	9	22,226
3/32	48	2,381	**1**	8	25,401
1/8	40	3,175	**1 1/8**	7	28,576
5/32	32	3,969	**1 1/4**	7	31,751
3/16	24	4,762	**1 3/8**	6	34,926
7/32	24	5,556	**1 1/2**	6	38,101
1/4	20	6,350	**1 5/8**	5	41,277
5/16	18	7,938	**1 3/4**	5	44,452
3/8	16	9,525	**1 7/8**	4 1/2	47,627
7/16	14	11,113	**2**	4 1/2	50,802
1/2	12	12,700	**2 1/4**	4	57,152
9/16	12	14,288	**2 1/2**	4	63,502
5/8	11	15,876	**2 3/4**	3 1/2	69,853
3/4	10	19,051	**3**	3 1/2	76,203

G (BSP)

Ø (")	Paso *Pitch*	Ø (mm)	Ø (")	Paso *Pitch*	Ø (mm)
G 1/8	28	9,728	**G 1 1/2**	11	47,803
G 1/4	19	13,157	**G 1 3/4**	11	53,746
G 3/8	19	16,662	**G 2**	11	59,614
G 1/2	14	20,955	**G 2 1/4**	11	65,710
G 5/8	14	22,911	**G2 3/2**	11	75,184
G 3/4	14	26,441	**G2 3/4**	11	81,534
G 7/8	14	30,201	**G 3**	11	87,884
G 1	11	33,249	**G 3 1/4**	11	93,980
G 1 1/8	11	37,897	**G 3 1/2**	11	100,330
G 1 1/4	11	41,910	**G 3 3/4**	11	106,680
G 1 3/8	11	44,323	**G 4**	11	113,030

CONVERSIÓN DE VELOCIDAD DE CORTE, DE M/MIN A RPM

CONVERSION TABLE OF CUTTING SPEED M/MIN TO R/MIN
CONVERSION DE VITESSE DE COUPAGE, DE M/MIN Á RPM

m/min.		4	6	8	9	10	12
Medida / *Size*		RPM					
mm	Pulgada / *Inches*						
1,6	**1/16**	800	1.194	1.592	1.791	1.988	2.386
1,8		708	1.065	1.415	1.598	1.768	2.121
2,0		637	955	1.274	1.433	1.591	1.909
2,2	**3/32**	579	869	1.158	1.303	1.446	1.736
2,5		510	764	1.019	1.147	1.274	1.527
3,0	**1/8**	425	637	849	955	1.061	1.273
3,5		364	546	728	819	909	1.091
4,0	**5/32**	318	478	637	718	796	955
4,5		283	425	566	637	707	849
5,0	**3/16**	255	382	510	573	637	764
6,0	**1/4**	212	319	425	477	530	636
7,0	**9/32**	182	273	364	409	455	546
8,0	**5/16**	159	239	319	358	398	477
9,0		142	212	283	318	354	425
10,0	**3/8**	127	191	255	286	318	382
11,0		116	174	232	260	289	347
12,0	**1/2**	106	159	212	238	265	318
13,0		98	147	196	220	245	294
14,0	**9/16**	91	136	182	205	277	273
16,0	**5/8**	80	119	159	179	199	239
18,0		71	106	141	159	177	212
20,0	**3/4**	64	96	127	143	159	191
22,0	**7/8**	58	87	116	130	145	174
24,0	**1**	53	80	106	119	133	159
27,0		47	71	94	106	118	141
30,0	**1-1/8**	43	64	85	95	106	127
33,0	**1-1/4**	39	58	77	87	96	116
36,0		35	53	71	80	88	106
39,0	**1-1/2**	33	49	65	73	82	98
42,0		30	46	61	68	76	91
45,0	**1-3/4**	28	42	57	64	71	85
48,0		27	40	53	60	66	80
52,0		24	37	49	55	61	73
56,0	**2**	23	34	46	51	57	68

UNC / UNF

Nº	Paso UNC / *Pitch UNC*	Paso UNF / *Pitch UNF*	Ø (mm)
Nr. 0	-	80	1,52
Nr. 1	64	72	1,85
Nr. 2	56	72	1,85
Nr. 3	48	56	2,52
Nr. 4	40	48	2,85
Nr. 5	40	44	3,18
Nr. 6	32	40	3,51
Nr. 8	32	36	4,17
Nr. 10	24	32	4,83
Nr. 12	24	38	5,49

PG

Nº	Paso / *Pitch*	Ø (mm)
PG 7	20	12,500
PG 9	18	15,200
PG 11	18	18,600
PG 13,5	18	20,400
PG 16	18	22,500
PG 21	16	28,300
PG 29	16	37,000
PG 36	16	47,000
PG 42	16	54,000
PG 48	16	59,500

15	18	21	25	27	30	36
			RPM			
2.983	3.579	4.176	4.971	5.369	5.965	7.158
2.652	3.182	3.712	4.419	4.743	5.303	6.364
2.386	2.863	3.341	3.977	4.295	4.773	5.727
2.169	2.603	3.037	3.616	3.905	4.339	5.207
1.909	2.291	2.673	3.182	3.436	3.818	4.582
1.591	1.909	2.227	2.651	2.864	3.182	3.818
1.364	1.636	1.909	2.273	2.455	2.727	3.273
1.193	1.432	1.671	1.989	2.148	2.387	2.864
1.061	1.273	1.485	1.768	1.909	2.122	2.546
955	1.146	1.337	1.591	1.719	1.909	2.292
795	954	1.113	1.326	1.432	1.592	1.909
682	818	955	1.136	1.227	1.364	1.636
597	716	835	994	1.074	1.193	1.432
531	637	742	885	955	1.061	1.293
477	573	668	795	859	955	1.146
434	521	608	723	781	868	1.041
398	477	557	663	716	796	955
367	441	514	612	661	734	881
341	409	477	568	614	682	818
298	358	418	497	537	597	716
265	318	371	442	477	530	636
239	286	334	398	430	477	573
217	260	304	362	391	434	521
199	239	275	331	353	398	477
177	212	245	295	318	354	424
159	191	223	265	286	318	382
145	174	203	241	260	289	347
133	159	186	221	239	265	318
122	147	171	204	220	245	294
114	186	159	189	205	227	273
106	127	149	177	191	212	255
99	119	139	166	179	199	239
92	110	129	153	165	184	220
85	102	119	142	153	170	205

DIÁMETRO DE BROCA PREVIA RECOMENDADO

RECOMMENDED TAPPINNG DRILL SIZES • DIAMÈTRES PRÉALABLES AU FILETAGE

M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	BSW	Ø (mm)	UNC	Ø (mm)	UNF	Ø (mm)
1 x 0,25	0,75	3 x 0,35	2,65	24 x 2	22,00	W 3/32	1,80	Nº 1-64	1,50	Nº 0-80	1,30
1,1 x 0,25	0,85	3,5 x 0,35	3,15	25 x 1	24,00	W 1/8	2,60	Nº 2-56	1,80	Nº 1-72	1,60
1,2 x 0,25	0,95	4 x 0,35	3,65	25 x 1,5	23,50	W 5/32	3,10	Nº3-48	2,10	Nº 2-64	1,90
1,4 x 0,3	1,10	4 x 0,5	3,50	26 x 1	25,00	W 3/16	3,60	Nº 4-40	2,30	Nº 3-56	2,10
1,6 x 0,35	1,25	5 x 0,5	4,50	26 x 1,5	24,50	W 7/32	4,40	Nº 5-40	2,60	Nº 4-48	2,40
(1,7) x 0,35	1,30	6 x 0,5	5,50	27 x 1	26,00	W 1/4	5,10	Nº 6-32	2,85	Nº 5-44	2,70
1,8 x 0,35	1,45	6 x 0,75	5,20	27 x 1,5	25,50	W 5/16	6,50	Nº 8-32	3,50	Nº 6-40	3,00
2 x 0,4	1,60	7 x 0,75	6,20	27 x 2	25,00	W 3/8	7,90	Nº 10-24	3,90	Nº8-36	3,50
2,2 x 0,45	1,75	8 x 0,5	7,50	28 x 1,5	26,50	W 7/16	9,30	Nº 12-24	4,50	Nº 10-32	4,10
(2,3) x 0,4	1,90	8 x 0,75	7,20	28 x 2	26,00	W 1/2	10,50	1/4-20	5,20	Nº 12-28	4,70
2,5 x 0,45	2,05	8 x 0,1	7,00	30 x 1	29,00	W 9/16	12,00	5/16-18	6,60	1/4-28	5,50
(2,6) x 0,45	2,10	9 x 0,1	8,00	30 x 1,5	28,50	W 5/8	13,50	3/8-16	8,00	5/16-24	6,90
3 x 0,5	2,50	10 x 0,5	9,50	30 x 2	28,00	W 3/4	16,50	7/16-14	9,40	3/8-24	8,50
(3) x 0,6	2,40	10 x 0,75	9,20	32 x 1,5	30,50	W 7/8	19,25	1/2-13	10,80	7/16-20	9,90
3,5 x 0,6	2,90	10 x 1	9,00	33 x 1,5	31,50	W 1"	22,00	9/16-12	12,20	1/2-20	11,50
(3,5) x 0,75	2,75	10 x 1,25	8,80	33 x 2	31,00	W 1" 1/8	24,75	5/8-11	13,50	9/16-18	12,90
4 x 0,7	3,30	11 x 1	10,00	34 x 1,5	32,50	W 1" 1/4	27,75	3/4-10	16,50	5/8-18	14,50
(4) x 0,75	3,25	12 x 0,75	11,20	35 x 1,5	33,50	W 1" 3/8	30,20	7/8-9	19,50	3/4-16	17,50
4,5 x 0,75	3,70	12 x 1	11,00	36 x 1,5	34,50	W 1" 1/2	33,50	1"-8	22,25	7/8-14	20,25
5 x 0,8	4,20	12 x 1,25	10,80	36 x 2	34,00	W 1" 3/4	38,50	1" 1/8-7	25,00	1"-12	23,25
(5) x 0,9	4,10	12 x 1,5	10,50	36 x 3	33,00	W 2"	44,50	1" 1/4-7	28,25	1" 1/8-12	26,50
6 x 1	5,00	13 x 1	12,00	38 x 1,5	36,50	BSF	Ø (mm)	1" 3/8-6	30,75	1"1/4-12	29,50
7 x 1	6,00	13 x 1,5	11,50	39 x 1,5	37,50	BSF 1/4	5,20	1" 1/2-6	34,00	1" 3/8-12	32,50
8 x 1,25	6,80	13 x 1,75	11,20	39 x 2	37,00	BSF 5/16	6,60	1" 3/4-5	39,50	1"1/2-12	36,00
9 x 1,25	7,80	14 x 1	13,00	39 x 3	36,00	BSF 3/8	8,10	2"-4,5	45,00	BSP	Ø (mm)
10 x 1,5	8,50	14 x 1,25	12,80	40 x 1,5	38,50	BSF 7/16	9,50	2" 1/4-4,5	51,50	G 1/8	8,80
11 x 1,5	9,50	14 x 1,5	12,50	40 x 2	38,00	BSF 1/2	11,00	2" 1/2-4	57,25	G 1/4	11,80
12 x 1,75	10,20	15 x 1	14,00	40 x 3	37,00	BSF 5/8	14,00	2" 3/4-4	63,50	G 3/8	15,25
14 x 2	12,00	15 x 1,5	13,50	42 x 1,5	40,50	BSF 3/4	16,50	3"-4	70,00	G 1/2	19,00
16 x 2	14,00	15 x 2	13,00	42 x 2	40,00	BSF 7/8	19,50	3" 1/4-4	76,20	G 5/8	21,00
18 x 2,5	15,50	16 x 1	15,00	42 x 3	39,00	BSF 1"	22,50	3" 1/2-4	82,60	G 3/4	24,50
20 x 2,5	17,50	16 x 1,5	14,50	45 x 1,5	43,50	NPT	Ø (mm)	PG	Ø (mm)	G 7/8	28,25
22 x 2,5	19,50	18 x 1	17,00	45 x 2	43,00	1/16-27	6,30	PG 7	11,40	G 1"	30,75
24 x 3	21,00	18 x 1,5	16,50	45 x 3	42,00	1/8-27	8,50	PG 9	14,00	G 1" 1/8	35,30
27 x 3	24,00	18 x 2	16,00	48 x 1,5	46,50	1/4-18	11,20	PG 11	17,25	G 1" 1/4	39,30
30 x 3,5	26,50	20 x 1	19,00	48 x 2	46,00	3/8-18	14,50	PG 13,5	19,00	G 1" 3/8	41,70
33 x 3,5	29,50	20 x 1,5	18,50	48 x 3	45,00	1/2-14	18,00	PG 16	21,25	G 1" 1/2	45,20
36 x 4	32,00	20 x 2	18,00	50 x 1,5	48,50	3/4-14	23,00	PG 21	26,75	G 1" 3/4	51,10
39 x 4	35,00	22 x 1	21,00	50 x 2	48,00	1"-11,5	29,00	PG 29	35,50	G 2"	57,00
42 x 4,5	37,50	22 x 1,5	20,50	50 x 3	47,00	1" 1/4-11,5	38,00	PG 36	45,50	G 2" 1/4	63,10
45 x 4,5	40,50	22 x 2	20,00	52 x 1,5	50,50	1" 1/2-11,5	44,00	PG 42	52,50	G 2" 1/2	72,60
48 x 5	43,00	24 x 1	23,00	52 x 2	50,00	2"-11,5	56,00	PG 48	58,00	G 2" 3/4	78,90
52 x 5	47,00	24 x 1,5	22,50	52 x 3	49,00	2" 1/2-8	67,00			G 3"	85,30
						3"-8	83,00				

DIÁMETRO PREVIO DEL EJE A ROSCAR

RECOMMENDED OUTSIDE DIAMETER • AXES PRÉALABLES AU FILETAGE

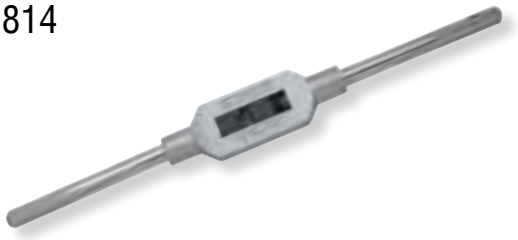
M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	BSW	Ø (mm)	UNC	Ø (mm)	UNF	Ø (mm)
1 x 0,25	0,97	3 x 0,35	2,94	24 x 2	22,82	W 1/4	6,16	Nº 1-64	1,79	Nº 0-80	1,47
1,1 x 0,25	1,07	3,5 x 0,35	3,44	25 x 1	24,88	W 5/16	7,76	Nº 2-56	2,12	Nº 1-72	1,79
1,2 x 0,25	1,17	4 x 0,35	3,94	25 x 1,5	24,85	W 3/8	9,30	Nº3-48	2,44	Nº 2-64	2,12
1,4 x 0,3	1,36	4 x 0,5	3,93	26 x 1	25,88	W 7/16	10,89	Nº 4-40	2,76	Nº 3-56	2,44
1,6 x 0,35	1,54	5 x 0,5	4,93	26 x 1,5	25,85	W 1/2	12,43	Nº 5-40	3,09	Nº 4-48	2,77
(1,7) x 0,35	1,64	6 x 0,5	5,93	27 x 1	26,88	W 9/16	13,92	Nº 6-32	3,41	Nº 5-44	3,10
1,8 x 0,35	1,74	6 x 0,75	5,90	27 x 1,5	26,85	W 5/8	15,62	Nº 8-32	4,07	Nº 6-40	3,42
2 x 0,4	1,93	7 x 0,75	6,90	27 x 2	26,82	W 3/4	18,76	Nº 10-24	4,71	Nº8-36	4,08
2,2 x 0,45	2,13	8 x 0,5	7,93	28 x 1,5	27,85	W 7/8	21,89	Nº 12-24	5,37	Nº 10-32	7,73
(2,3) x 0,4	2,23	8 x 0,75	7,90	28 x 2	27,82	W 1"	25,08	1/4-20	6,22	Nº 12-28	5,38
2,5 x 0,45	2,43	8 x 0,1	7,83	30 x 1	29,88	W 1" 1/8	28,21	5/16-18	7,80	1/4-28	6,24
(2,6) x 0,45	2,53	9 x 0,1	8,88	30 x 1,5	29,85	BSF	Ø (mm)	3/8-16	9,37	5/16-24	7,82
3 x 0,5	2,92	10 x 0,5	9,93	30 x 2	29,82	BSF 1/4	6,25	7/16-14	10,95	3/8-24	9,41
(3) x 0,6	2,91	10 x 0,75	9,90	32 x 1,5	31,85	BSF 5/16	7,82	1/2-13	12,52	7/16-20	10,98
3,5 x 0,6	3,41	10 x 1	9,88	33 x 1,5	32,85	BSF 3/8	9,39	9/16-12	14,10	1/2-20	12,56
(3,5) x 0,75	3,41	10 x 1,25	9,86	33 x 2	32,82	BSF 7/16	10,97	5/8-11	15,68	9/16-18	14,14
4 x 0,7	3,91	11 x 1	10,88	34 x 1,5	33,85	BSF 1/2	12,54	3/4-10	18,84	5/8-18	15,73
(4) x 0,75	3,91	12 x 0,75	11,90	35 x 1,5	34,85	BSF 5/8	15,71	7/8-9	22,00	3/4-16	18,89
4,5 x 0,75	4,41	12 x 1	11,88	36 x 1,5	35,85	BSF 3/4	18,85	1"-8	25,16	7/8-14	22,05
5 x 0,8	4,90	12 x 1,25	11,86	36 x 2	35,82	BSF 7/8	22,02	1" 1/8-7	28,31	1"-12	25,21
(5) x 0,9	4,89	12 x 1,5	11,85	36 x 3	35,76	BSF 1"	25,17	1" 1/4-7	31,49	1" 1/8-12	28,38
6 x 1	5,88	13 x 1	12,88	38 x 1,5	37,85	NPT	Ø (mm)	1" 3/8-6	34,63	1"1/4-12	31,56
7 x 1	6,88	13 x 1,5	12,85	39 x 1,5	38,85	1/16-27	8,17	1" 1/2-6	37,81	1" 3/8-12	34,73
8 x 1,25	7,87	13 x 1,75	12,83	39 x 2	38,82	1/8-27	10,55	1" 3/4-5	44,12	1"1/2-12	37,91
9 x 1,25	8,87	14 x 1	13,88	39 x 3	38,76	1/4-18	14,10	2"-4,5	50,45	BSP	Ø (mm)
10 x 1,5	9,85	14 x 1,25	13,86	40 x 1,5	39,85	3/8-18	17,52	2" 1/4-4,5	56,80	G 1/8	9,62
11 x 1,5	10,85	14 x 1,5	13,85	40 x 2	39,82	1/2-14	21,85	2" 1/2-4	63,10	G 1/4	13,03
12 x 1,75	11,83	15 x 1	14,88	40 x 3	39,76	3/4-14	27,16	2" 3/4-4	69,45	G 3/8	16,53
14 x 2	13,82	15 x 1,5	14,85	42 x 1,5	41,85	1"-11,5	34,16	3"-4	75,80	G 1/2	20,81
16 x 2	15,82	15 x 2	14,82	42 x 2	41,85	1" 1/4-11,5	42,74	3" 1/4-4		G 5/8	22,77
18 x 2,5	17,79	16 x 1	15,88	42 x 3	41,76	1" 1/2-11,5	48,87	3" 1/2-4		G 3/4	26,30
20 x 2,5	19,79	16 x 1,5	15,85	45 x 1,5	44,85	2"-11,5	60,95	PG	Ø (mm)	G 7/8	30,06
22 x 2,5	21,79	18 x 1	17,88	45 x 2	44,82			PG 7	12,40	G 1"	33,07
24 x 3	23,77	18 x 1,5	17,85	45 x 3	44,76			PG 9	15,10	G 1" 1/8	37,71
27 x 3	26,77	18 x 2	17,82	48 x 1,5	47,85			PG 11	18,50	G 1" 1/4	41,73
30 x 3,5	29,73	20 x 1	19,88	48 x 2	47,82			PG 13,5	20,30	G 1" 3/8	44,14
33 x 3,5	32,73	20 x 1,5	19,85	48 x 3	47,46			PG 16	22,40	G 1" 1/2	47,62
36 x 4	35,70	20 x 2	19,82	50 x 1,5	49,85			PG 21	28,15	G 1" 3/4	53,56
39 x 4	38,70	22 x 1	21,88	50 x 2	49,82			PG 29	36,85	G 2"	59,43
42 x 4,5	41,69	22 x 1,5	21,85	50 x 3	49,76			PG 36	46,85		
45 x 4,5	44,68	22 x 2	21,82	52 x 1,5	51,85			PG 42	53,85		
48 x 5	47,66	24 x 1	23,88	52 x 2	51,82			PG 48	59,15		
52 x 5	51,66	24 x 1,5	23,85	52 x 3	51,76						

GIRAMACHOS CON CRIQUE IZQ-DCH
TAP HOLDER WITH RATCHET, LEFT-RIGHT HAND
PORTE TARAUDS



Nº	Para machos / *For Taps*		⌀ (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
1	M 3 - 10	1/8 - 3/8	2,4 - 5,5	85	0,165	**1**	1R10001	**18,55**
2	M 5 - 12	7/32 - 1/2	4,5 - 8,0	100	0,310	**1**	1R10002	**23,50**
10	M 3 - 10	1/8 - 3/8	2,4 - 5,5	250	0,250	**1**	1R10010	**30,91**
20	M 5 - 12	7/32 - 1/2	4,5 - 8,0	300	0,440	**1**	1R10020	**37,10**

GIRAMACHOS AJUSTABLES DE ZINC FUNDIDO DIN1814
ZINC ADJUSTABLE TAP WRENCHES DIN 1814
PORTE TARAUDS EN ZINC DIN 1814



DIN 1814

Nº	Para machos / *For Taps*				⌀ (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
0	M 1 - 8	1/16 - 1/4			2,0 - 5,0	130	0,050	**1**	1R13000	**8,45**
1	M 1 - 10	1/16 - 3/8	G	1/8	2,0 - 6,3	176	0,095	**1**	1R13010	**8,70**
1.1/2	M 1 - 12	1/16 - 1/2	G	1/8	2,1 - 8,0	176	0,120	**1**	1R13015	**8,70**
2	M 4 - 12	5/32 - 1/2	G	1/8	3,0 - 9,0	280	0,285	**1**	1R13020	**13,98**
3	M 5 - 20	7/32 - 3/4	G	1/8 - 1/2	4,9 - 12,0	380	0,660	**1**	1R13030	**23,59**
4	M 11 - 27	7/16 - 1	G	1/4 - 3/4	5,5 - 16,0	505	1,500	**1**	1R13040	**42,15**
5 L	M 13 - 32	1/2 - 1.1/4	G	1/4 - 1	7,0 - 20,0	700	1,800	**1**	1R13050	**65,75**

GIRAMACHOS AJUSTABLES DE ACERO DIN 1814

STEEL ADJUSTABLE TAP WRENCHES DIN 1814
PORTE TARAUDS EN ACIER DIN1814



DIN 1814

Nº	Para machos / *For Taps*			Ø (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
0	M 1 - 8	1/16 - 1/4		2,0 - 5,0	130	0,050	**1**	1R14000	**16,86**
1	M 1 - 10	1/16 - 3/8		2,0 - 6,3	188	0,100	**1**	1R14010	**16,12**
1.1/2	M 1 - 12	1/16 - 1/2	G 1/8	2,1 - 8,0	215	0,120	**1**	1R14015	**17,11**
2	M 4 - 12	5/32 - 1/2	G 1/8	3,0 - 9,0	280	0,285	**1**	1R14020	**21,49**
3	M 5 - 20	7/32 - 3/4	G 1/8 - 1/2	4,9 - 12	380	0,660	**1**	1R14030	**33,22**
4	M 11 - 27	7/16 - 1	G 1/4 - 3/4	5,5 - 16	500	1,500	**1**	1R14040	**61,21**
5	M 13 - 32	1/2 - 1.1/4	G 1/4 - 1	7 - 20	700	1,800	**1**	1R14050	**102,42**
6	M 18 - 42	3/4 - 1.1/2	G 1/2 - 1.1/4	11 - 24	1.000	2,600	**1**	1R14060	**108,67**
7	M 25 - 52	1 - 2.1/8	G 3/4 - 2.1/4	16 - 32	1.250	4,500	**1**	1R14070	**183,61**
8	M 25 - 64	1 - 2.1/2	G 3/4 - 3	16 - 40	1.250	4,500	**1**	1R14080	**417,46**

PROLONGADOR PARA MACHOS DIN 377

TAP EXTYENSION DIN 377
EXTENSION POUR TARAUDS



DIN 377

Ø (mm)	L1	Para / *For* DIN 352	Cod.	€/Unid.
2,1	60	M 1-2.6	1R14521	**8,14**
2,4	70		1R14524	**8,14**
2,7	80	M 3	1R14527	**8,14**
3,0	90	M 3.5	1R14530	**8,14**
3,4	95	M 4	1R14534	**8,39**
3,8	100		1R14538	**8,90**
4,3	105		1R14543	**9,67**
4,9	110	M 4.5-8	1R14549	**9,91**
5,5	115	M 9-10	1R14555	**10,17**
6,2	120	M 11	1R14562	**13,48**
7,0	125	M 12	1R14570	**13,98**
8,0	125		1R14580	**15,76**
9,0	130	M 14-16	1R14590	**18,55**
10,0	140		1R14610	**22,64**
11,0	150	M 18	1R14611	**26,19**
12,0	155	M 20	1R14612	**29,24**
13,0	165		1R14613	**38,89**
14,5	175	M 22-24	1R14614	**44,75**
16,0	180	M 27	1R14616	**47,29**
18,0	200	M 30	1R14618	**53,66**
20,0	220	M 33	1R14620	**72,22**
22,0	220	M 36	1R14622	**97,89**
24,0	235	M 39-42	1R14624	**120,53**
26,0	250		1R14626	**147,35**
29,0	265	M 45-48	1R14629	**177,49**
32,0	285	M 52	1R14632	**245,18**

VOLVEDORES ZINC FUNDIDO DIN 225 (EN 22568)

ZINC DIE HOLDERS DIN 225 (EN 22568)
PORTE FILIÈRES DIN 225 (EN 22568) EN ZINC



DIN 225 DIN 22568

Ø (mm)	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
16 x 5	M 1,0 - 2,6	BSW 1/16 - 3/32	160	0,050	**1**	1R15001	**5,49**
20 x 5	M 3,0 - 4,0	BSW 1/8 - 5/32	200	0,065	**1**	1R15002	**5,73**
20 x 7	M 4,5 - 6,0	BSW 3/16 - 1/4	200	0,065	**1**	1R15003	**5,73**
25 x 9	M 7,0 - 9,0	BSW 5/16	224	0,105	**1**	1R15004	**6,42**
30 x 11	M 10,0 - 11,0	BSW 3/8 - 7/16	280	0,190	**1**	1R15005	**10,56**
38 x 10	Mf 12,0 - 15,0	G 1/4	315	0,340	**1**	1R15006	**16,51**
38 x 14	M 12,0 - 15,0	BSW 1/2 - 9/16	315	0,340	**1**	1R15007	**16,51**
45 x 14	Mf 16,0 - 21,0	G 3/8 - 1/2	450	0,650	**1**	1R15008	**19,50**
45 x 18	M 16,0 - 2,0	BSW 5/8 - 13/16	450	0,650	**1**	1R15009	**19,50**
55 x 16	Mf 22,0 - 26,0	G 5/8 - 3/4	560	0,900	**1**	1R15010	**25,23**
55 x 22	M 22,0 - 24,0	BSW 7/8 - 1	560	0,900	**1**	1R15011	**25,23**
65 x 18	Mf 27,0 - 36,0	G 7/8 - 1	630	1,400	**1**	1R15012	**42,43**
65 x 25	M 27,0 - 36,0	BSW 1.1/8 - 1.3/8	630	1,400	**1**	1R15013	**42,43**

VOLVEDORES ZINC FUNDIDO EN PULGADAS - 3 TORNILLOS

ZINC DIE HOLDERS IN INCH 3 SCREWS
PORTE FILIÈRES EN POUCES Á 3 VISSES



Ø (")	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
13/16	20,6 x 6,35	13/16 x 1/4	200	0,060	**1**	1R15520	**6,12**
1	25,4 x 9,5	1 x 3/8"	224	0,100	**1**	1R15525	**6,37**
1.5/16	33,4 x 11,1	1.5/16 x 7/16	270	0,180	**1**	1R15533	**9,44**
1.1/2	38,1 x 12,7	1.1/2 x 1/2	315	0,320	**1**	1R15538	**17,70**
2	50,8 x 15,9	2 x 5/8	560	0,900	**1**	1R15550	**28,31**
2.1/4	57,1 x 17,5	2.1/4 x 11/16	560	0,900	**1**	1R15557	**28,31**
2.1/2	63,5 x 19,0	2.1/2 x 3/4	630	1,400	**1**	1R15563	**43,66**
3	76,2 x 22,2	3 x 7/8"	800	2,200	**1**	1R15576	**99,11**
3.1/2	88,9 x 25,4	3.1/2 x 1	900	3,300	**1**	1R15588	**122,72**
4	101,6 x 25,4	4 x 1	1.000	3,600	**1**	1R15599	**389,40**

VOLVEDORES ACERO DIN 225 (EN 22568)

STEEL DIE HOLDERS DIN 225 (EN 22568)
PORTE FILIÈRES DIN 225 (EN 22568) EN ACIER



DIN 225 | DIN 22568

Ø (mm)	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
45 x 18	M 16 - 20	BSW 5/8 - 13/16	450	0,650	**1**	1R15209	**28,82**
55 x 22	M 22 - 24	BSW 7/8 - 1	560	0,900	**1**	1R15211	**40,96**
65 x 25	M 27 - 36	BSW 1.1/8 - 1.3/8	630	1,400	**1**	1R15213	**53,08**
75 x 20	Mf 38 - 42	G 1.1/8 - 1.1/4	800	2,250	**1**	1R15214	**85,14**
75 x 30	M 38 - 42	BSW 1.1/2 - 1.5/8	800	2,100	**1**	1R15215	**85,14**
90 x 22	Mf 45 - 52	G 1.3/8 - 1.5/8	900	3,200	**1**	1R15216	**105,77**
90 x 36	M 45 - 52	BSW 1.3/4 - 2	900	3,000	**1**	1R15217	**105,77**
105 x 22	Mf 54 - 63	G 1.3/4 - 2	975	3,500	**1**	1R15218	**168,73**
105 x 36	M 54 - 63	BSW 2.1/4	975	3,500	**1**	1R15219	**168,73**
120 x 22	Mf 64 - 71	G 2.1/4 - 2.3/4	956	3,170	**1**	1R15220	**427,43**
120 x 36	M 64 - 71	BSW 2.1/2 - 2.3/4	956	3,910	**1**	1R15221	**427,43**
130 x 25		G 3	966	3,505	**1**	1R15222	**607,39**
130 x 36			966	4,025	**1**	1R15223	**764,86**
140 x 22			976	3,620	**1**	1R15224	**764,86**
150 x 25		G 3.1/2	986	3,950	**1**	1R15226	**868,34**
160 x 25		G 4	996	4,115	**1**	1R15228	**1.192,27**

ACEITE DE CORTE Y ROSCADO

CUTTING AND TAPPING FLUID
FLUIDE POUR FILETAGE ET DE COUP

Contenido / *Content*	Uds.	Cod	€/Unid.
400 ml	1	1AC4000	**18,19**



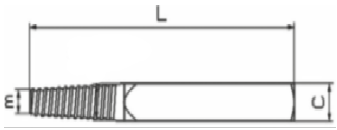
Metales duros y blandos. Alto poder refrigerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrision capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.

EXTRACTOR DE TORNILLOS 5 PIEZAS ADVANCE
5 PCS ADVANCE SCREW EXTRACTORS
EXTRACTEURS DE VIS ADVANCE 5 PCS



Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.	€/Unid.
3 - 22	5	6Z00GR30	**48,86**

Broca / *Drill Bit*	m (mm)	C (mm)	L (mm)
3	2,7	5	51
4	3,3	5	68
5	4,6	6	66
6	5,5	8	73
8	6,7	10	80



EXTRACTOR DE TORNILLOS STANDARD
STANDARD SCREW EXTRACTORS
EXTRACTEURS DE VIS STANDARD



Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.	€/Unid.
3 - 18	5	6Z00GR15	**14,78**
3 - 24	6	6Z00GR16	**18,40**
3 - 45	8	6Z00GR18	**37,15**

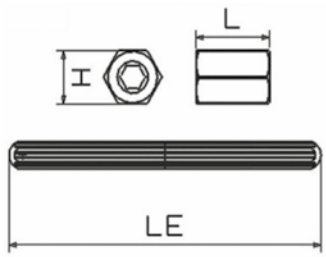
JUEGOS DE MACHOS ESTRIADOS 5 PIEZAS
FLUTES TAPS SET - 5 PCS
JEU DE TARAUDS CANÉLÉS 5 PCS



Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.	€/Unid.
5 - 14	5	6Z00ST01	**89,36**

Contenido / *Contains* / *Contenu*

Extractor	Broca / *Drill Bit*	H (mm)	L (mm)	LE (mm)
H1	4,0	16	10	57
H2	5,0	16	11	68
H3	6,0	16	13	78
H4	7,5	16	14	84
H5	8,5	16	16	94



JUESGOS DE BROCAS Y GUIAS EXTERIORES E INTERIORES

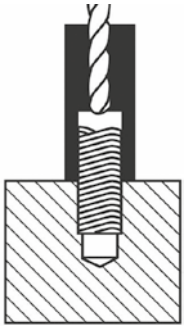
FULL SET WITH 5 DRILLS AND EXTERNAL AND INTERNAL GUIDES
JEU COMPLET AVEC 5 FORETS ET 10 INTERNE ET EXTERNE GUIDES



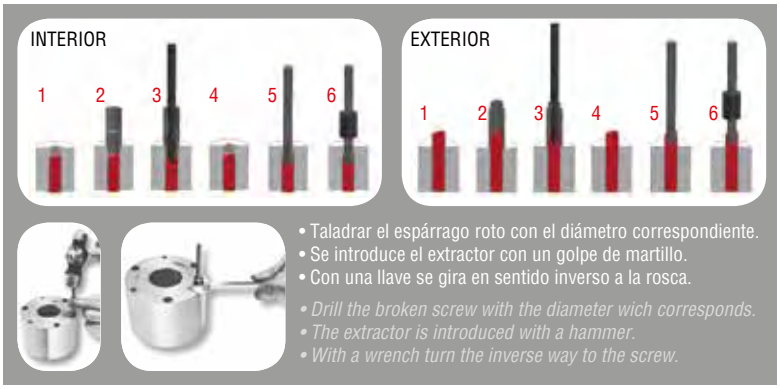
Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.	€/Unid.
5 - 14	25	6Z00ST02	**184,79**

Contenido / *Contains* / *Contenu*

Guía / *Guide*	1	2	3	4	5	6	7	8	9	10
Ext.	M5	M6	M7	M8	M8	M9	M10	M11	M12	M14
Int.	-	M6	M8	3/8"	1/2"	M10	7/16"	M12	M14	M16
Broca / *Drill Bit*	4	4	4	4	5	5	5	6	7,5	8,5
Extractor	H1	H1	H1	H1	H2	H2	H2	H3	H4	H5



Instrucciones de uso / *Instructions* / *Mode d´emploi*



- Taladrar el espárrago roto con el diámetro correspondiente.
- Se introduce el extractor con un golpe de martillo.
- Con una llave se gira en sentido inverso a la rosca.

- *Drill the broken screw with the diameter wich corresponds.*
- *The extractor is introduced with a hammer.*
- *With a wrench turn the inverse way to the screw.*

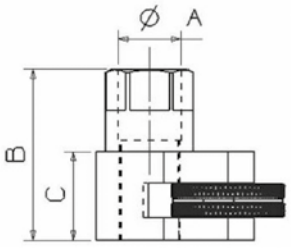


EXTRACTORES DE ESPÁRRAGOS SALIENTES

STUD EXTARCTORS • EXTRACTEURS DE GOUJONS



Para Tornillos / *Screws*	A (mm)	B (mm)	C (mm)	Cod.	€/Unid.
4,5 - 9,5	12	46	25	6Z00GR31	**78,77**
8 - 19	21	60	31	6Z00GR32	**121,03**
15 - 25	30	68	38	6Z00GR33	**186,82**



M JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13

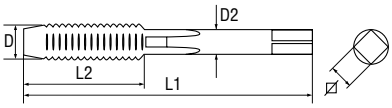
METRIC ISO-THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS À MAIN, METRIQUE DIN 13



ACERO 400-800 N/mm²

HSS-G | **DIN 352** | TOL **6H**



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 1,00 x 0,25	32	5,5	2,5	2,1	2R27302	21,11	**63,34**
M 1,10 x 0,25	32	5,5	2,5	2,1	2R27304	21,11	**63,34**
M 1,20 x 0,25	32	5,5	2,5	2,1	2R27306	21,11	**63,34**
M 1,40 x 0,30	32	7,0	2,5	2,1	2R27308	21,11	**63,34**
M 1,60 x 0,35	32	8,0	2,5	2,1	2R27310	21,11	**63,34**
M 1,70 x 0,35	32	8,0	2,5	2,1	2R27312	21,11	**63,34**
M 1,80 x 0,35	32	8,0	2,5	2,1	2R27314	21,11	**63,34**
M 2,00 x 0,40	36	8,0	2,8	2,1	2R27316	8,63	**25,90**
M 2,20 x 0,45	36	9,0	2,8	2,1	2R27318	8,63	**25,90**
M 2,30 x 0,40	36	9,0	2,8	2,1	2R27320	8,63	**25,90**
M 2,50 x 0,45	40	9,0	2,8	2,1	2R27322	8,63	**25,90**
M 2,60 x 0,45	40	9,0	2,8	2,1	2R27324	8,63	**25,90**
M 3,00 x 0,50	40	11,0	3,5	2,7	2R27326	5,52	**16,57**
M 3,50 x 0,60	45	13,0	4,0	3,0	2R27328	7,18	**21,54**
M 4,00 x 0,70	45	13,0	4,5	3,4	2R27330	5,25	**15,75**
M 4,50 x 0,75	50	16,0	6,0	4,9	2R27332	8,05	**24,16**
M 5,00 x 0,80	50	16,0	6,0	4,9	2R27334	5,52	**16,57**
M 5,50 x 0,90	50	18,0	6,0	4,9	2R27336	13,06	**39,17**
M 6,00 x 1,00	50	19,0	6,0	4,9	2R27338	5,52	**16,57**
M 7,00 x 1,00	50	19,0	6,0	4,9	2R27340	8,22	**24,67**
M 8,00 x 1,25	56	22,0	6,0	4,9	2R27342	6,17	**18,52**
M 9,00 x 1,25	63	22,0	7,0	5,5	2R27344	10,94	**32,82**
M 10,00 x 1,50	70	24,0	7,0	5,5	2R27346	8,37	**25,10**
M 11,00 x 1,50	70	24,0	8,0	6,2	2R27348	14,39	**43,16**
M 12,00 x 1,75	75	29,0	9,0	7,0	2R27350	10,95	**32,86**
M 14,00 x 2,00	80	30,0	11,0	9,0	2R27354	12,63	**37,90**
M 15,00 x 2,00	80	32,0	12,0	9,0	2R27356	13,21	**39,62**
M 16,00 x 2,00	80	32,0	12,0	9,0	2R27358	17,79	**53,36**
M 18,00 x 2,50	95	40,0	14,0	11,0	2R27362	25,02	**75,05**
M 20,00 x 2,50	95	40,0	16,0	12,0	2R27366	26,67	**80,00**
M 22,00 x 2,50	100	40,0	18,0	14,5	2R27370	33,34	**100,02**
M 24,00 x 3,00	110	50,0	18,0	14,5	2R27374	44,46	**133,37**
M 27,00 x 3,00	110	50,0	20,0	16,0	2R27376	55,89	**167,66**
M 30,00 x 3,50	125	56,0	22,0	18,0	2R27378	75,22	**225,66**
M 33,00 x 3,50	125	56,0	25,0	20,0	2R27380	102,29	**306,86**
M 36,00 x 4,00	150	63,0	28,0	22,0	2R27382	128,40	**385,21**
M 39,00 x 4,00	150	63,0	32,0	24,0	2R27384	148,64	**445,92**
M 42,00 x 4,50	150	63,0	32,0	24,0	2R27386	178,52	**535,57**
M 45,00 x 4,50	160	70,0	36,0	29,0	2R27388	204,77	**614,31**
M 48,00 x 5,00	180	75,0	36,0	36,0	2R27390	256,81	**770,42**
M 52,00 x 5,00	180	75,0	40,0	32,0	2R27392	300,20	**900,60**
M 56,00 x 5,50	200	85,0	45,0	35,0	2R27394	392,98	**1.178,95**
M 60,00 x 5,50	200	85,0	45,0	35,0	2R27396	511,12	**1.533,35**
M 64,00 x 6,00	220	90,0	50,0	39,0	2R27398	666,51	**1.999,54**
M 68,00 x 6,00	220	90,0	50,0	39,0	2R27399	781,28	**2.343,83**

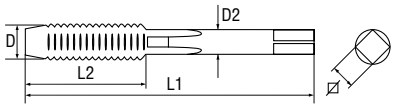
JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13 CON ENTRADA CÓNICA

METRIC ISO-THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS À MAIN, METRIQUE DIN 13



ACERO 400-800 N/mm²

HSS-G | DIN 352 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 2,00 x 0,40	36	8	2,8	2,1	2R27616	8,57	**25,71**
M 2,50 x 0,45	40	9	2,8	2,1	2R27622	8,57	**25,71**
M 3,00 x 0,50	40	11	3,5	2,7	2R27626	5,90	**17,71**
M 4,00 x 0,70	45	13	4,5	3,4	2R27630	5,61	**16,84**
M 5,00 x 0,80	50	16	6,0	4,9	2R27634	5,90	**17,71**
M 6,00 X 100	50	19	6,0	4,9	2R27638	5,90	**17,71**
M 8,00 x 1,25	56	22	6,0	4,9	2R27642	6,60	**19,80**
M 9,00 x 1,25	63	22	7,0	5,5	2R27644	11,19	**33,57**
M 10,00 x 1,50	70	24	7,0	5,5	2R27646	8,94	**26,83**
M 11,00 x 1,50	70	24	8,0	6,2	2R27648	14,28	**42,85**
M 12,00 x 1,75	75	29	9,0	7,0	2R27650	11,71	**35,14**
M 13,00 x 1,75	75	29	9,0	7,0	2R27652	16,12	**48,36**
M 14,00 x 2,00	80	30	11,0	9,0	2R27654	13,50	**40,51**
M 16,00 x 2,00	80	32	12,0	9,0	2R27658	19,01	**57,04**
M 18,00 x 2,50	95	40	14,0	11,0	2R27662	25,58	**76,75**
M 19,00 x 2,50	95	40	14,0	11,0	2R27664	35,30	**105,91**
M 20,00 x 2,50	95	40	16,0	12,0	2R27666	27,27	**81,81**
M 22,00 x 2,50	100	40	18,0	14,5	2R27670	34,09	**102,28**
M 24,00 x 3,00	110	50	18,0	14,5	2R27674	45,46	**136,39**
M 27,00 x 3,00	110	50	20,0	16,0	2R27676	57,15	**171,45**
M 30,00 x 3,50	125	56	22,0	18,0	2R27678	76,92	**230,76**
M 33,00 x 3,50	125	56	25,0	20,0	2R27680	101,55	**304,66**
M 36,00 x 4,00	150	63	28,0	22,0	2R27682	127,48	**382,45**
M 39,00 x 4,00	150	63	32,0	24,0	2R27684	147,58	**442,73**
M 42,00 x 4,50	150	63	32,0	24,0	2R27686	177,24	**531,72**
M 3,00 x 0,60	40	11	3,5	2,7	2R27627*	11,09	**33,26**
M 4,00 x 0,75	45	13	4,5	3,4	2R27631*	11,09	**33,26**

*Hasta fin de existencias / **Until end of stock* / **Jusqu´à épuisement des stocks*

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

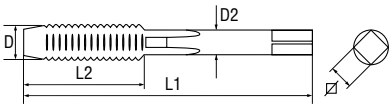
METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



ACERO 400-800 N/mm²

HSS-G | **DIN 2181** | TOL **6H**



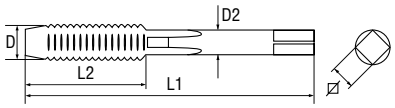
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 2,50 x 0,35	40	9	2,8	2,1	2R26304	15,88	**31,77**
M 2,60 x 0,35	40	9	2,8	2,1	2R26305	15,88	**31,77**
M 3,00 x 0,35	40	9	3,5	2,7	2R26308	15,88	**31,77**
M 3,50 x 0,35	45	10	4,0	3,0	2R26309	15,88	**31,77**
M 4,00 x 0,35	45	10	4,5	3,4	2R26310	15,88	**31,77**
M 4,00 x 0,50	45	10	4,5	3,4	2R26312	15,88	**31,77**
M 4,50 x 0,50	50	12	6,0	4,9	2R26313	15,88	**31,77**
M 5,00 x 0,50	50	12	6,0	4,9	2R26314	15,88	**31,77**
M 5,00 x 0,75	50	12	6,0	4,9	2R26316	15,88	**31,77**
M 5,50 x 0,50	50	12	6,0	4,9	2R26315	15,88	**31,77**
M 6,00 x 0,50	50	14	6,0	4,9	2R26317	12,59	**25,19**
M 6,00 x 0,75	50	14	6,0	4,9	2R26318	10,49	**20,99**
M 7,00 x 0,50	50	14	6,0	4,9	2R26319	14,37	**28,75**
M 7,00 x 0,75	50	14	6,0	4,9	2R26320	12,72	**25,44**
M 8,00 x 0,50	50	19	6,0	4,9	2R26322	18,78	**37,56**
M 8,00 x 0,75	50	19	6,0	4,9	2R26324	13,76	**27,52**
M 8,00 x 1,00	56	22	6,0	4,9	2R26326	10,72	**21,43**
M 9,00 x 0,50	56	19	7,0	5,5	2R26327	15,88	**31,77**
M 9,00 x 0,75	56	19	7,0	5,5	2R26328	15,88	**31,77**
M 9,00 x 1,00	63	20	7,0	5,5	2R26330	13,41	**26,83**
M 10,00 x 0,50	63	20	7,0	5,5	2R26331	18,78	**37,56**
M 10,00 x 0,75	63	20	7,0	5,5	2R26332	18,78	**37,56**
M 10,00 x 1,00	63	20	7,0	5,5	2R26336	10,54	**21,07**
M 10,00 x 1,25	70	24	7,0	5,5	2R26338	12,64	**25,28**
M 11,00 x 0,75	63	20	8,0	6,2	2R26339	25,27	**50,54**
M 11,00 x 1,00	63	20	8,0	6,2	2R26340	19,49	**38,99**
M 11,00 x 1,25	63	22	8,0	6,2	2R26342	19,49	**38,99**
M 12,00 x 0,50	70	22	9,0	7,0	2R26345	25,27	**50,54**
M 12,00 x 0,75	70	22	9,0	7,0	2R26343	25,27	**50,54**
M 12,00 x 1,00	70	22	9,0	7,0	2R26344	18,57	**37,13**
M 12,00 x 1,25	70	22	9,0	7,0	2R26346	18,57	**37,13**
M 12,00 x 1,50	70	22	9,0	7,0	2R26348	16,37	**32,74**
M 13,00 x 0,50	70	22	11,0	9,0	2R26347	28,88	**57,75**
M 13,00 x 0,75	70	22	11,0	9,0	2R26349	27,50	**55,00**
M 13,00 x 1,00	70	22	11,0	9,0	2R26350	28,88	**57,75**
M 13,00 x 1,50	70	22	11,0	9,0	2R26351	28,88	**57,75**
M 14,00 x 0,50	70	22	11,0	9,0	2R26355	32,49	**64,98**
M 14,00 x 0,75	70	22	11,0	9,0	2R26352	32,49	**64,98**
M 14,00 x1,00	70	22	11,0	9,0	2R26353	27,50	**55,00**
M 14,00 x 1,25	70	22	11,0	9,0	2R26354	24,07	**48,13**
M 14,00 x 1,50	70	22	11,0	9,0	2R26356	17,97	**35,94**
M 15,00 x 0,75	70	22	12,0	9,0	2R26357	35,74	**71,48**
M 15,00 x 1,00	70	22	12,0	9,0	2R26358	35,74	**71,48**
M 15,00 x 1,50	70	22	12,0	9,0	2R26360	35,74	**71,48**
M 16,00 x 0,50	70	22	12,0	9,0	2R26361	32,85	**65,70**

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 16,00 x 0,75	70	22	12,0	9,0	2R26363	32,85	**65,70**
M 16,00 x 1,00	70	22	12,0	9,0	2R26362	31,29	**62,57**
M 16,00 x 1,25	70	22	12,0	9,0	2R26364	31,29	**62,57**
M 16,00 x 1,50	70	22	12,0	9,0	2R26366	21,85	**43,70**
M 17,00 x 1,00	70	22	12,0	9,0	2R26368	35,74	**71,48**
M 17,00 x 1,50	70	22	12,0	9,0	2R26369	35,74	**71,48**
M 18,00 x 0,50	80	22	14,0	11,0	2R26367	35,74	**71,48**
M 18,00 x 0,75	80	22	14,0	11,0	2R26373	35,74	**71,48**
M 18,00 x 1,00	80	22	14,0	11,0	2R26370	34,04	**68,07**
M 18,00 x 1,25	80	22	14,0	11,0	2R26371	35,74	**71,48**
M 18,00 x 1,50	80	22	14,0	11,0	2R26372	29,80	**59,59**
M 18,00 x 2,00	80	22	14,0	11,0	2R26374	34,04	**68,07**
M 19,00 x 1,00	80	22	16,0	12,0	2R26375	46,94	**93,87**
M 19,00 x 1,50	80	22	14,0	11,0	2R26376	46,94	**93,87**
M 20,00 x 0,50	80	22	16,0	12,0	2R26377	46,94	**93,87**
M 20,00 x 0,75	80	22	16,0	12,0	2R26379	46,94	**93,87**
M 20,00 x 1,00	80	22	16,0	12,0	2R26378	46,94	**93,87**
M 20,00 x 1,25	80	22	16,0	12,0	2R26380	46,94	**93,87**
M 20,00 x 1,50	80	22	16,0	12,0	2R26384	36,51	**73,02**
M 20,00 x 2,00	80	22	16,0	12,0	2R26386	44,70	**89,40**
M 21,00 x 1,00	80	22	16,0	12,0	2R26387	46,94	**93,87**
M 21,00 x 1,50	80	22	16,0	12,0	2R26388	46,94	**93,87**
M 22,00 x 0,50	80	22	18,0	14,5	2R26389	46,94	**93,87**
M 22,00 x 0,75	80	22	18,0	14,5	2R26391	46,94	**93,87**
M 22,00 x 1,00	80	22	18,0	14,5	2R26390	46,94	**93,87**
M 22,00 x 1,25	80	22	18,0	14,5	2R26392	46,94	**93,87**
M 22,00 x 1,50	80	22	18,0	14,5	2R26394	42,64	**85,28**
M 22,00 x 2,00	80	22	18,0	14,5	2R26396	44,70	**89,40**
M 23,00 x 1,00	80	22	18,0	14,5	2R26397	64,99	**129,98**
M 23,00 x 1,50	80	22	18,0	14,5	2R26398	64,99	**129,98**
M 24,00 x 0,50	90	22	18,0	14,5	2R26501	64,99	**129,98**
M 24,00 x 0,75	90	22	18,0	14,5	2R26503	64,99	**129,98**
M 24,00 x 1,00	90	22	18,0	14,5	2R26500	64,99	**129,98**
M 24,00 x 1,25	90	22	18,0	14,5	2R26502	64,99	**129,98**
M 24,00 x 1,50	90	22	18,0	14,5	2R26504	56,54	**113,08**
M 24,00 x 2,00	90	22	18,0	14,5	2R26506	61,89	**123,79**
M 25,00 x 1,00	90	22	18,0	14,5	2R26507	93,87	**187,73**
M 25,00 x 1,50	90	22	18,0	14,5	2R26508	90,25	**180,51**
M 26,00 x 1,00	90	22	18,0	14,5	2R26510	90,25	**180,51**
M 26,00 x 1,50	90	22	18,0	14,5	2R26512	80,55	**161,10**
M 26,00 x 2,00	90	22	18,0	14,5	2R26514	89,40	**178,79**
M 27,00 x 1,00	90	22	20,0	16,0	2R26516	93,87	**187,73**
M 27,00 x 1,50	90	22	20,0	16,0	2R26517	93,87	**187,73**
M 27,00 x 2,00	90	22	20,0	16,0	2R26518	106,86	**213,72**
M 28,00 x 1,00	90	22	20,0	16,0	2R26520	115,52	**231,04**

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

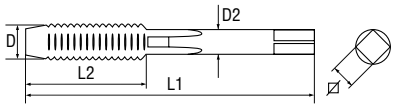
METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



ACERO 400-800 N/mm²

HSS-G | DIN 2181 | TOL 6H

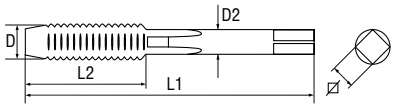


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 28,00 x 1,50	90	22	20,0	16,0	2R26522	97,47	**194,93**
M 28,00 x 2,00	90	22	20,0	16,0	2R26524	108,30	**216,60**
M 29,00 x 1,50	90	22	22,0	18,0	2R26526	111,91	**223,82**
M 30,00 x 1,00	90	22	22,0	18,0	2R26528	112,63	**225,26**
M 30,00 x 1,50	90	22	22,0	18,0	2R26530	101,80	**203,60**
M 30,00 x 2,00	90	22	22,0	18,0	2R26532	115,52	**231,04**
M 30,00 x 2,50	125	56	22,0	18,0	2R26533	115,52	**231,04**
M 30,00 x 3,00	125	56	22,0	18,0	2R26534	122,75	**245,49**
M 32,00 x 1,00	90	22	22,0	18,0	2R26539	122,75	**245,49**
M 32,00 x 1,50	90	22	22,0	18,0	2R26536	122,75	**245,49**
M 32,00 x 2,00	90	22	22,0	18,0	2R26535	122,75	**245,49**
M 32,00 x 3,00	125	56	22,0	18,0	2R26537	122,75	**245,49**
M 33,00 x 1,50	100	25	25,0	20,0	2R26538	122,75	**245,49**
M 33,00 x 2,00	100	25	25,0	20,0	2R26540	151,62	**303,25**
M 33,00 x 3,00	125	56	25,0	20,0	2R26542	151,62	**303,25**
M 34,00 x 1,00	100	25	28,0	22,0	2R26543	151,62	**303,25**
M 34,00 x 1,50	100	25	28,0	22,0	2R26544	151,62	**303,25**
M 34,00 x 2,00	125	40	28,0	22,0	2R26546	158,85	**317,69**
M 35,00 x 1,00	100	25	28,0	22,0	2R26547	151,62	**303,25**
M 35,00 x 1,50	100	25	28,0	22,0	2R26548	151,62	**303,25**
M 35,00 x 2,00	125	40	28,0	22,0	2R26549	151,62	**303,25**
M 36,00 x 1,00	100	25	28,0	22,0	2R26551	161,73	**323,46**
M 36,00 x 1,50	100	25	28,0	22,0	2R26550	161,73	**323,46**
M 36,00 x 2,00	125	40	28,0	22,0	2R26552	166,07	**332,13**
M 36,00 x 3,00	125	40	28,0	22,0	2R26554	166,07	**332,13**
M 37,00 x 1,50	100	25	28,0	22,0	2R26553	187,72	**375,45**
M 38,00 x 1,00	100	25	28,0	22,0	2R26555	187,72	**375,45**
M 38,00 x 1,50	100	25	28,0	22,0	2R26556	187,72	**375,45**
M 38,00 x 2,00	125	40	28,0	22,0	2R26557	202,17	**404,33**
M 38,00 x 3,00	125	40	28,0	22,0	2R26559	202,17	**404,33**
M 39,00 x 1,50	110	25	32,0	24,0	2R26558	202,17	**404,33**
M 39,00 x 2,00	125	40	32,0	24,0	2R26560	202,17	**404,33**
M 39,00 x 3,00	125	40	32,0	24,0	2R26562	202,17	**404,33**
M 40,00 x 1,00	110	25	32,0	24,0	2R26563	202,17	**404,33**
M 40,00 x 1,50	110	25	32,0	24,0	2R26564	202,17	**404,33**
M 40,00 x 2,00	125	40	32,0	24,0	2R26566	202,17	**404,33**
M 40,00 x 3,00	125	40	32,0	24,0	2R26568	216,61	**433,21**
M 42,00 x 1,00	110	25	32,0	24,0	2R26569	216,61	**433,21**
M 42,00 x 1,50	110	25	32,0	24,0	2R26570	216,61	**433,21**
M 42,00 x 2,00	125	40	32,0	24,0	2R26572	216,61	**433,21**
M 42,00 x 3,00	125	40	32,0	24,0	2R26574	245,49	**490,98**
M 44,00 x 1,50	110	25	36,0	29,0	2R26571	252,71	**505,41**
M 44,00 x 2,00	125	40	36,0	29,0	2R26573	252,71	**505,41**
M 45,00 x 1,00	110	25	36,0	29,0	2R26575	252,71	**505,41**
M 45,00 x 1,50	110	25	36,0	29,0	2R26576	252,71	**505,41**

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 45,00 x 2,00	125	40	36,0	29,0	2R26578	252,71	**505,41**
M 45,00 x 3,00	125	40	36,0	29,0	2R26580	252,71	**505,41**
M 46,00 x 1,50	140	40	36,0	29,0	2R26581	252,71	**505,41**
M 48,00 x 1,00	140	40	36,0	29,0	2R26583	274,37	**548,73**
M 48,00 x 1,50	140	40	36,0	29,0	2R26582	274,37	**548,73**
M 48,00 x 2,00	140	40	36,0	29,0	2R26584	274,37	**548,73**
M 48,00 x 3,00	140	40	36,0	29,0	2R26586	274,37	**548,73**
M 50,00 x 1,50	140	40	36,0	29,0	2R26588	306,85	**613,71**
M 50,00 x 2,00	140	40	36,0	29,0	2R26590	306,85	**613,71**
M 50,00 x 3,00	140	40	36,0	29,0	2R26592	306,85	**613,71**
M 52,00 x 1,50	140	40	40,0	32,0	2R26594	335,74	**671,47**
M 52,00 x 2,00	140	40	40,0	32,0	2R26596	361,01	**722,01**
M 52,00 x 3,00	140	40	40,0	32,0	2R26598	361,01	**722,01**
M 54,00 x 1,00	140	32	40,0	32,0	2R28118	392,62	**785,23**
M 54,00 x 1,50	140	32	40,0	32,0	2R28001	394,29	**788,57**
M 54,00 x 2,00	140	36	40,0	32,0	2R28002	394,29	**788,57**
M 54,00 x 3,00	140	40	40,0	32,0	2R28003	394,29	**788,57**
M 54,00 x 4,00	180	50	40,0	32,0	2R28004	394,29	**788,57**
M 55,00 x 1,50	140	32	40,0	32,0	2R28005	518,21	**1.036,43**
M 55,00 x 2,00	140	36	40,0	32,0	2R28006	518,21	**1.036,43**
M 55,00 x 3,00	140	40	40,0	32,0	2R28007	518,21	**1.036,43**
M 55,00 x 4,00	180	50	40,0	32,0	2R28008	518,21	**1.036,43**
M 56,00 x 1,00	140	32	40,0	32,0	2R28119	550,60	**1.101,20**
M 56,00 x 1,50	140	32	40,0	32,0	2R28009	550,60	**1.101,20**
M 56,00 x 2,00	140	36	40,0	32,0	2R28010	549,80	**1.099,60**
M 56,00 x 3,00	140	40	40,0	32,0	2R28011	549,80	**1.099,60**
M 56,00 x 4,00	180	50	40,0	32,0	2R28012	478,09	**956,18**
M 58,00 x 1,00	160	32	45,0	35,0	2R28120	582,99	**1.165,98**
M 58,00 x 1,50	160	32	45,0	35,0	2R28013	582,99	**1.165,98**
M 58,00 x 2,00	160	36	45,0	35,0	2R28014	582,99	**1.165,98**
M 58,00 x 3,00	160	40	45,0	35,0	2R28015	582,99	**1.165,98**
M 58,00 x 4,00	200	55	45,0	35,0	2R28016	582,99	**1.165,98**
M 60,00 x 1,50	160	34	45,0	35,0	2R28017	599,18	**1.198,36**
M 60,00 x 2,00	160	36	45,0	35,0	2R28018	599,18	**1.198,36**
M 60,00 x 3,00	160	40	45,0	35,0	2R28019	599,18	**1.198,36**
M 60,00 x 4,00	200	55	45,0	35,0	2R28020	599,18	**1.198,36**
M 62,00 x 1,50	160	34	50,0	39,0	2R28021	647,77	**1.295,53**
M 62,00 x 2,00	160	36	50,0	39,0	2R28022	647,77	**1.295,53**
M 62,00 x 3,00	180	45	50,0	39,0	2R28023	647,77	**1.295,53**
M 62,00 x 4,00	220	55	50,0	39,0	2R28024	647,77	**1.295,53**
M 63,00 x 1,50	160	32	50,0	39,0	2R28025	663,97	**1.327,93**
M 64,00 x 1,50	160	34	50,0	39,0	2R28026	663,97	**1.327,93**
M 64,00 x 2,00	160	36	50,0	39,0	2R28027	663,97	**1.327,93**
M 64,00 x 3,00	180	45	50,0	39,0	2R28028	663,97	**1.327,93**
M 64,00 x 4,00	220	60	50,0	39,0	2R28029	663,97	**1.327,93**

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13

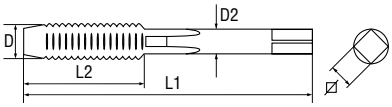
METRIC FINE THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



ACERO 400-800 N/mm²

HSS-G | DIN 2181 | TOL 6H

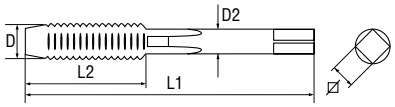


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 65,00 x 1,50	160	34	50,0	39,0	2R28030	712,54	**1.425,09**
M 65,00 x 2,00	160	36	50,0	39,0	2R28031	712,54	**1.425,09**
M 65,00 x 3,00	180	45	50,0	39,0	2R28032	712,54	**1.425,09**
M 65,00 x 4,00	220	60	50,0	39,0	2R28033	712,54	**1.425,09**
M 68,00 x 1,50	160	36	50,0	39,0	2R28034	728,74	**1.457,49**
M 68,00 x 2,00	160	40	50,0	39,0	2R28035	728,74	**1.457,49**
M 68,00 x 3,00	180	50	50,0	39,0	2R28036	728,74	**1.457,49**
M 68,00 x 4,00	220	60	50,0	39,0	2R28037	728,74	**1.457,49**
M 70,00 x 1,50	160	36	50,0	39,0	2R28038	1.173,11	**2.346,23**
M 70,00 x 2,00	160	40	50,0	39,0	2R28039	1.173,11	**2.346,23**
M 70,00 x 3,00	200	50	50,0	39,0	2R28040	1.334,41	**2.668,83**
M 70,00 X 4,00	240	60	50,0	39,0	2R28041	1.334,41	**2.668,83**
M 72,00 x 1,50	160	36	50,0	39,0	2R28042	1.173,11	**2.346,23**
M 72,00 X 2,00	160	40	50,0	39,0	2R28043	1.173,11	**2.346,23**
M 72,00 x 3,00	200	50	50,0	39,0	2R28044	1.334,41	**2.668,83**
M 72,00 x 4,00	240	60	50,0	39,0	2R28045	1.334,41	**2.668,83**
M 74,00 x 1,50	160	36	50,0	39,0	2R28046	1.290,42	**2.580,85**
M 74,00 x 2,00	160	40	50,0	39,0	2R28047	1.290,42	**2.580,85**
M 74,00 x 3,00	200	50	50,0	39,0	2R28048	1.525,05	**3.050,10**
M 74,00 X 4,00	240	60	50,0	39,0	2R28049	1.525,05	**3.050,10**
M 75,00 x 1,50	160	36	50,0	39,0	2R28050	1.313,89	**2.627,78**
M 75,00 x 2,00	160	40	50,0	39,0	2R28051	1.313,89	**2.627,78**
M 75,00 x 3,00	200	50	50,0	39,0	2R28052	1.554,38	**3.108,75**
M 75,00 x 4,00	240	60	50,0	39,0	2R28053	1.554,38	**3.108,75**
M 76,00 x1,50	160	36	50,0	39,0	2R28054	1.334,41	**2.668,83**
M 76,00 x 2,00	160	40	50,0	39,0	2R28055	1.334,41	**2.668,83**
M 76,00 x 3,00	220	50	50,0	39,0	2R28056	1.642,36	**3.284,72**
M 76,00 x 4,00	260	60	50,0	39,0	2R28057	1.642,36	**3.284,72**
M 78,00 x 1,50	160	36	50,0	39,0	2R28058	1.334,41	**2.668,83**
M 78,00 x 2,00	160	40	50,0	39,0	2R28059	1.334,41	**2.668,83**
M 78,00 x 3,00	220	55	50,0	39,0	2R28060	1.642,36	**3.284,72**
M 78,00 x 4,00	260	65	50,0	39,0	2R28061	1.642,36	**3.284,72**
M 80,00 x 1,50	160	36	50,0	39,0	2R28062	1.451,73	**2.903,46**
M 80,00 x 2,00	160	40	50,0	39,0	2R28063	1.451,73	**2.903,46**
M 80,00 x 3,00	220	55	50,0	39,0	2R28064	1.803,66	**3.607,32**
M 80,00 x 4,00	260	65	50,0	39,0	2R28065	1.803,66	**3.607,32**
M 82,00 x 1,50	160	36	50,0	39,0	2R28066	1.451,73	**2.903,46**
M 82,00 x 2,00	160	40	50,0	39,0	2R28067	1.451,73	**2.903,46**
M 82,00 x 3,00	220	55	50,0	39,0	2R28068	1.803,66	**3.607,32**
M 82,00 x 4,00	260	65	50,0	39,0	2R28069	1.803,66	**3.607,32**
M 84,00 x 1,50	160	36	50,0	39,0	2R28070	1.686,35	**3.372,70**
M 84,00 x 2,00	160	40	50,0	39,0	2R28071	1.686,35	**3.372,70**
M 84,00 x 3,00	220	55	50,0	39,0	2R28072	2.052,95	**4.105,90**
M 84,00 x 4,00	260	65	50,0	39,0	2R28073	2.052,95	**4.105,90**
M 85,00 x 1,50	160	36	50,0	39,0	2R28074	2.199,59	**4.399,18**

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13



HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 85,00 x 2,00	160	40	50,0	39,0	2R28075	2.199,59	**4.399,18**
M 85,00 x 3,00	220	55	50,0	39,0	2R28076	2.668,84	**5.337,67**
M 85,00 x 4,00	260	65	50,0	39,0	2R28077	2.668,84	**5.337,67**
M 86,00 x 1,50	160	36	50,0	39,0	2R28078	2.199,59	**4.399,18**
M 86,00 x 2,00	160	40	50,0	39,0	2R28079	2.199,59	**4.399,18**
M 86,00 x 3,00	220	55	50,0	39,0	2R28080	2.668,84	**5.337,67**
M 86,00 x 4,00	260	65	50,0	39,0	2R28081	2.668,84	**5.337,67**
M 88,00 x 1,50	160	38	50,0	39,0	2R28082	2.390,22	**4.780,44**
M 88,00 x 2,00	160	40	50,0	39,0	2R28083	2.390,22	**4.780,44**
M 88,00 x 3,00	220	55	50,0	39,0	2R28084	2.771,48	**5.542,96**
M 88,00 x 4,00	260	65	50,0	39,0	2R28085	2.771,48	**5.542,96**
M 90,00 x 1,50	160	38	50,0	39,0	2R28086	2.492,87	**4.985,74**
M 90,00 x 2,00	160	40	50,0	39,0	2R28087	2.492,87	**4.985,74**
M 90,00 x 3,00	220	55	50,0	39,0	2R28088	2.962,11	**5.924,22**
M 90,00 x 4,00	260	65	50,0	39,0	2R28089	2.962,11	**5.924,22**
M 92,00 x 1,50	180	40	56,0	44,0	2R28090	2.492,87	**4.985,74**
M 92,00 x 2,00	180	45	56,0	44,0	2R28091	2.492,87	**4.985,74**
M 92,00 x 3,00	240	60	56,0	44,0	2R28092	3.152,75	**6.305,49**
M 92,00 x 4,00	280	70	56,0	44,0	2R28093	3.152,75	**6.305,49**
M 95,00 x 1,50	180	40	56,0	44,0	2R28094	3.192,04	**6.384,08**
M 95,00 x 2,00	180	45	56,0	44,0	2R28095	3.192,04	**6.384,08**
M 95,00 x 3,00	240	60	56,0	44,0	2R28096	3.592,66	**7.185,33**
M 95,00 x 4,00	280	70	56,0	44,0	2R28097	3.592,66	**7.185,33**
M 96,00 x 1,50	180	40	56,0	44,0	2R28098	2.712,83	**5.425,65**
M 96,00 x 2,00	180	45	56,0	44,0	2R28099	2.712,83	**5.425,65**
M 96,00 x 3,00	240	60	56,0	44,0	2R28100	3.592,66	**7.185,33**
M 96,00 x 4,00	280	70	56,0	44,0	2R28101	3.592,66	**7.185,33**
M 98,00 x 1,50	180	40	56,0	44,0	2R28102	4.369,85	**8.739,70**
M 98,00 x 2,00	180	45	56,0	44,0	2R28103	4.369,85	**8.739,70**
M 98,00 x 3,00	240	60	56,0	44,0	2R28104	3.812,62	**7.625,24**
M 98,00 x 4,00	280	70	56,0	44,0	2R28105	3.812,62	**7.625,24**
M 100,00 x 1,50	180	45	56,0	44,0	2R28106	3.314,05	**6.628,09**
M 100,00 x 2,00	180	50	56,0	44,0	2R28107	3.314,05	**6.628,09**
M 100,00 x 3,00	240	65	56,0	44,0	2R28108	4.032,58	**8.065,15**
M 100,00 x 4,00	280	75	56,0	44,0	2R28109	4.032,58	**8.065,15**
M 105,00 x 1,50	180	45	56,0	44,0	2R28110	3.592,66	**7.185,33**
M 105,00 x 2,00	180	50	56,0	44,0	2R28111	3.592,66	**7.185,33**
M 105,00 x 3,00	240	65	56,0	44,0	2R28112	4.325,86	**8.651,72**
M 105,00 x 4,00	280	75	56,0	44,0	2R28113	4.325,86	**8.651,72**
M 110,00 x 1,50	180	45	56,0	44,0	2R28114	3.973,92	**7.947,84**
M 110,00 x 2,00	180	50	56,0	44,0	2R28115	3.973,92	**7.947,84**
M 110,00 x 3,00	240	65	56,0	44,0	2R28116	4.883,09	**9.766,17**
M 110,00 x 4,00	280	75	56,0	44,0	2R28117	4.883,09	**9.766,17**

BSW JUEGOS DE MACHOS WHITWORTH BS 84

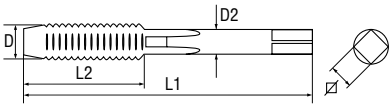
METRIC HAND TAPS WHITWORTH BS 84

JEUX DE TARAUDS À MAIN WHITWORTH



ACERO 400-800 N/mm²

HSS-G | DIN 351 | ≈DIN 352



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
1/16 x 60	36	10	2,5	2,1	2R22302	12,58	**37,74**
3/32 x 48	36	10	2,8	2,1	2R22304	9,88	**29,65**
1/8 x 40	40	12	3,5	2,7	2R22306	7,54	**22,62**
5/32 x 32	45	14	4,5	3,4	2R22308	7,54	**22,62**
3/16 x 24	50	18	6,0	4,9	2R22310	7,54	**22,62**
7/32 x 24	50	18	6,0	4,9	2R22312	9,88	**29,65**
1/4 x 20	50	19	6,0	4,9	2R22314	8,15	**24,45**
5/16 x 18	56	22	6,0	4,9	2R22316	9,41	**28,24**
3/8 x 16	70	24	7,0	5,5	2R22318	10,60	**31,79**
7/16 x 14	70	24	8,0	6,2	2R22320	13,69	**41,08**
1/2 x 12	75	29	9,0	7,0	2R22322	15,49	**46,46**
9/16 x 12	80	30	11,0	9,0	2R22324	21,40	**64,19**
5/8 x 11	80	32	12,0	9,0	2R22326	24,38	**73,15**
3/4 x 10	95	40	14,0	11,0	2R22330	33,00	**99,01**
7/8 x 9	100	40	18,0	14,5	2R22334	41,26	**123,79**
1 x 8	110	50	18,0	14,5	2R22338	55,01	**165,03**
1.1/8 x 7	132	56	22,0	18,0	2R22342	85,03	**255,10**
1.1/4 x 7	132	56	22,0	18,0	2R22346	89,90	**269,70**
1.3/8 x 6	150	63	28,0	22,0	2R22350	121,49	**364,46**
1.1/2 x 6	150	63	32,0	24,0	2R22354	143,35	**430,05**
1.5/8 x 5	160	70	32,0	24,0	2R22358	240,53	**721,59**
1.3/4 x 5	160	70	36,0	29,0	2R22362	257,54	**772,63**
1.7/8 x 4.1/2	190	80	36,0	29,0	2R22366	345,01	**1.035,02**
2 x 4.1/2	190	80	40,0	32,0	2R22370	349,86	**1.049,59**
2.1/4 x 4	220	80	45,0	35,0	2R22372	663,82	**1.991,45**
2.1/2 x 4	220	80	50,0	39,0	2R22374	855,08	**2.565,25**
2.3/4 x 3.1/2	240	80	50,0	39,0	2R22376	2.182,71	**6.548,14**
3 x 3.1/2	260	80	50,0	39,0	2R22378	2.812,77	**8.438,32**

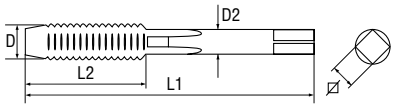
BSF JUEGOS DE MACHOS ROSCA BRITÁNICA STANDARD FINA BS 84

BRITISH STANDARD FINE THREAD BS 84

JEUX DE TARAUDS À MAIN FILETAGE WHITWORTH BS 84



HSS-G ≈DIN 2181



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
3/16 x 32	50	14	6,0	4,9	2R22710	24,91	**49,82**
1/4 x 26	50	18	6,0	4,9	2R22714	17,33	**34,66**
5/16 x 22	56	22	6,0	4,9	2R22716	18,05	**36,11**
3/8 x 20	63	22	7,0	5,5	2R22718	21,66	**43,33**
7/16 x 18	63	22	8,0	6,2	2R22720	27,44	**54,88**
1/2 x 16	75	24	9,0	7,0	2R22722	32,49	**64,98**
9/16 x 16	80	28	11,0	9,0	2R22724	36,11	**72,21**
5/8 x 14	80	28	12,0	9,0	2R22726	50,54	**101,08**
3/4 x 12	95	32	14,0	11,0	2R22730	72,20	**144,40**
7/8 x 11	100	36	18,0	14,5	2R22734	90,25	**180,51**
1 x 10	110	40	18,0	14,5	2R22738	108,30	**216,60**

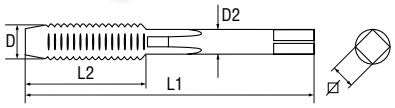
BA JUEGOS DE MACHOS ENTRADA CÓNICA BA, BS 93

BA THREAD BS 93

JEUX DE TARAUDS À MAIN FILETAGE BA, BS 93



HSS-G BA ISO 529



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Set
BA 0	66	19,0	6,30	5,00	2R89400	**91,06**
BA 1	62	17,0	5,60	4,50	2R89401	**91,06**
BA 2	58	16,0	5,00	4,00	2R89402	**91,06**
BA 3	53	13,0	4,50	3,55	2R89403	**91,06**
BA 4	50	13,0	3,55	2,80	2R89404	**91,06**
BA 5	48	11,0	3,15	2,50	2R89405	**91,06**
BA 6	45	9,5	2,80	2,24	2R89406	**91,06**

UNC

JUEGOS DE MACHOS ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

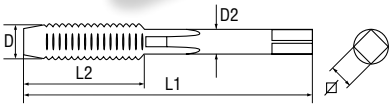


ACERO 400-800 N/mm²

HSS-G

≈DIN 352

TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.	€/Set
Nr. 1 x 64	32	10	2,5	2,1	2R23301	22,69	**68,07**
Nr. 2 x 56	36	11	2,8	2,1	2R23302	20,63	**61,89**
Nr. 3 x 48	36	11	2,8	2,1	2R23303	20,63	**61,89**
Nr. 4 x 40	40	12	3,5	2,7	2R23304	14,12	**42,35**
Nr. 5 x 40	40	12	3,5	2,7	2R23305	14,12	**42,35**
Nr. 6 x 32	45	14	4,0	3,0	2R23306	16,26	**48,78**
Nr. 8 x 32	45	14	4,5	3,4	2R23308	16,26	**48,78**
Nr. 10 x 24	50	16	6,0	4,9	2R23310	16,26	**48,78**
Nr. 12 x 24	50	18	6,0	4,9	2R23312	16,26	**48,78**
1/4 x 20	50	19	6,0	4,9	2R23314	10,91	**32,74**
5/16 x 18	56	22	6,0	4,9	2R23316	12,66	**37,99**
3/8 x 16	70	24	7,0	5,5	2R23318	13,97	**41,92**
7/16 x 14	70	24	8,0	6,2	2R23320	18,33	**55,00**
1/2 x 13	75	29	9,0	7,0	2R23322	21,83	**65,50**
9/16 x 12	80	30	11,0	9,0	2R23324	25,32	**75,96**
5/8 x 11	80	32	12,0	9,0	2R23326	30,56	**91,68**
3/4 x 10	95	40	14,0	11,0	2R23330	39,29	**117,88**
7/8 x 9	100	40	18,0	14,5	2R23334	50,43	**151,28**
1 x 8	110	50	18,0	14,5	2R23338	77,93	**233,80**
1.1/8 x 7	132	56	22,0	18,0	2R23342	87,47	**262,41**
1.1/4 x 7	132	56	22,0	18,0	2R23346	89,90	**269,70**
1.3/8 x 6	150	63	28,0	22,0	2R23350	121,49	**364,46**
1.1/2 x 6	150	63	32,0	24,0	2R23354	153,67	**461,02**
1.5/8 x 5	160	70	32,0	24,0	2R23358	340,15	**1.020,44**
1.3/4 x 5	160	70	36,0	29,0	2R23362	340,15	**1.020,44**
1.7/8 x 4.1/2	190	80	36,0	29,0	2R23366	388,74	**1.166,21**
2 x 4.1/2	190	80	40,0	32,0	2R23370	362,82	**1.088,47**

UNF JUEGOS DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1
JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ
PAS FIN ANSI B 1.1

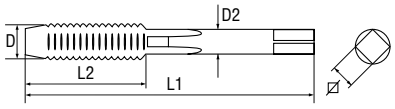


ACERO 400-800 N/mm²

HSS-G

≈DIN 2181

TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
Nr. 0 x 80	28	8	2,5	2,1	2R24300	28,19	**56,38**
Nr. 1 x 72	32	9	2,8	2,1	2R24301	28,19	**56,38**
Nr. 2 x 64	32	10	2,8	2,1	2R24302	25,73	**51,45**
Nr. 3 x 56	32	10	2,8	2,1	2R24303	25,73	**51,45**
Nr. 4 x 48	36	11	3,5	2,7	2R24304	17,33	**34,66**
Nr. 5 x 44	36	11	3,5	2,7	2R24305	17,33	**34,66**
Nr. 6 x 40	40	12	4,5	3,4	2R24306	17,33	**34,66**
Nr. 8 x 36	40	12	4,5	3,4	2R24308	17,33	**34,66**
Nr. 10 x 32	45	14	6,0	4,9	2R24310	16,50	**33,01**
Nr. 12 x 28	50	14	6,0	4,9	2R24312	17,33	**34,66**
1/4 x 28	50	18	6,0	4,9	2R24314	10,39	**20,78**
5/16 x 24	56	22	6,0	4,9	2R24316	11,00	**22,01**
3/8 x 24	63	22	7,0	5,5	2R24318	14,06	**28,12**
7/16 x 20	63	22	8,0	6,2	2R24320	15,28	**30,56**
1/2 x 20	75	24	9,0	7,0	2R24322	17,73	**35,46**
9/16 x 18	80	28	11,0	9,0	2R24324	22,43	**44,86**
5/8 x 18	80	28	12,0	9,0	2R24326	27,50	**55,00**
3/4 x 16	95	32	14,0	11,0	2R24330	37,98	**75,96**
7/8 x 14	100	36	18,0	14,5	2R24334	51,57	**103,15**
1 x 12	110	40	18,0	14,5	2R24338	72,20	**144,40**
1 x 14	110	40	18,0	14,5	2R24340	82,52	**165,03**
1.1/8 x 12	110	50	22,0	18,0	2R24342	91,11	**182,23**
1.1/4 x 12	132	56	22,0	18,0	2R24346	127,55	**255,10**
1.3/8 x 12	132	56	28,0	22,0	2R24350	200,44	**400,89**
1.1/2 x 12	150	63	32,0	24,0	2R24354	218,67	**437,34**

G(BSP) JUEGOS DE MACHOS ROSCA GAS DIN ISO 228

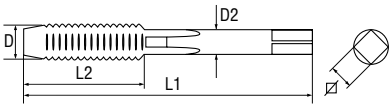
PIPE THREAD DIN ISO 228
JEUX DE TARAUDS À MAIN FILETAGE
PAS GAZ DIN ISO 228



ACERO 400-800 N/mm²

HSS-G

DIN 5157



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R25312	13,81	**27,61**
G 1/4 x 19	70	22	11,0	9,0	2R25314	18,83	**37,65**
G 3/8 x 19	70	22	12,0	9,0	2R25316	23,86	**47,71**
G 1/2 x 14	80	22	16,0	12,0	2R25318	33,89	**67,78**
G 5/8 x 14	80	22	18,0	14,5	2R25320	43,93	**87,85**
G 3/4 x 14	90	22	20,0	16,0	2R25322	50,21	**100,42**
G 7/8 x 14	90	22	22,0	18,0	2R25324	68,76	**137,52**
G 1 x 11	100	25	25,0	20,0	2R25326	86,84	**173,67**
G 1.1/8 x 11	125	40	28,0	22,0	2R25330	121,73	**243,46**
G 1.1/4 x 11	125	40	32,0	24,0	2R25334	145,78	**291,55**
G 1.3/8 x 11	140	40	36,0	29,0	2R25338	174,93	**349,87**
G 1.1/2 x 11	140	40	36,0	29,0	2R25342	200,44	**400,89**
G 1.5/8 x 11	140	40	40,0	32,0	2R25346	349,86	**699,72**
G 1.3/4 x 11	140	40	40,0	32,0	2R25350	349,86	**699,72**
G 2 x 11	160	40	45,0	35,0	2R25354	382,66	**765,32**
G 2.1/4 x 11	160	40	50,0	39,0	2R25358	687,24	**1.374,49**
G 2.1/2 x 11	160	40	50,0	39,0	2R25362	957,96	**1.915,93**
G 2.3/4 x 11	160	40	50,0	39,0	2R25366	1.326,57	**2.653,15**
G 3 x 11	160	40	50,0	39,0	2R25370	1.570,52	**3.141,05**
G 3.1/2 x 11	180	45	56,0	44,0	2R25374	2.466,21	**4.932,42**
G 4 x 11	180	45	56,0	44,0	2R25378	3.067,43	**6.134,86**

VG PARA ROSCAS DE VALVULAS DE NEUMÁTICO DIN 7756

FOR TIRE VALVES THREADS DIN 7756
POUR LES VALVES DES PNEUMATIQUES DIN 7756

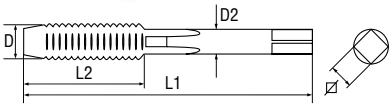


ACERO 400-800 N/mm²

HSS-G

DIN 2181

TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Set
VG 5 X 36	50	12	6,00	2,70	2R21501	**449,59**
VG 5,2 X 24	56	17	6,00	3,40	2R21502	**412,13**
VG 6 X 32	56	14	6,00	4,90	2R21503	**468,33**
VG 8 X 32	56	16	7,00	4,90	2R21504	**524,53**
VG 10 X 28	63	18	8,00	6,20	2R21505	**561,99**
VG 12 X 26	70	22	8,00	8,00	2R21506	**607,35**

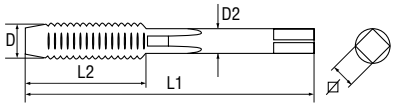
PG ROSCA PARA TUBOS BLINDADOS DIN 40 430

ARMOURED TUBE THREAD DIN 40 430

JEUX DE TARAUDS À MAIN FILETAGE ÉLECTRIQUE DIN 40 430



HSS-G | DIN 40432



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
PG 7 - 12,50 x 20	70	22	9,0	7,0	2R25707-3	**27,67**
PG 9 - 15,20 x 18	70	22	12,0	9,0	2R25709-3	**34,60**
PG 11 - 18,60 x 18	80	22	14,0	11,0	2R25711-3	**48,43**
PG 13,5 - 20,40 x 18	80	22	16,0	12,0	2R25713-3	**56,74**
PG 16 - 22,50 x 18	80	22	18,0	14,5	2R25716-3	**65,93**
PG 21 - 28,30 x 16	90	22	22,0	18,0	2R25721-3	**87,15**
PG 29 - 37,00 x 16	100	25	28,0	22,0	2R25729-3	**147,78**
PG 36 - 47,00 x 16	140	40	36,0	29,0	2R25736-3	**235,66**
PG 48 - 59,30 x 16	160	40	45,0	35,0	2R25748-3	**391,95**

Equivalencia de roscas PG a roscas Mf *Equivalents of threads PG to threads Mf / Équivalence du pas PG à pas Mf*	
PG 7	M 12 x 150
PG 9	M 16 x 150
PG 11	M 20 x 150
PG 13,5	M 20 x 150
PG 16	M 25 x 150
PG 21	M 32 x 150
PG 29	M 40 x 150
PG 36	M 50 x 150
PG 48	M 63 x 150

UNEF

JUEGOS DE MACHOS ROSCA EXTRAFINA UNIFICADA ANSI B 1.1, ENTRADA CÓNICA

UNIFIED EXTRA FINE THREAD
ANSI B 1.1, NON SERIAL FORM
JEUX DE TARAUDS À MAIN FILETAGE
UNIFIÉ PAS FIN ANSI B 1.1

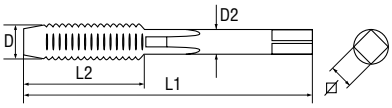


ACERO 800 -1100 N/mm²

HSS-G

ISO 529

TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
1/4 x 32	66	19	6,3	5,0	2R83821	33,42	**100,25**
5/16 x 32	72	22	8,0	6,3	2R83822	39,36	**118,07**
3/8 x 32	80	24	10,0	8,0	2R83823	44,60	**133,80**
7/16 x 28	85	25	8,0	6,3	2R83824	55,10	**165,29**
1/2 x 28	89	29	9,0	7,1	2R83825	63,61	**190,82**
9/16 x 24	95	30	11,2	9,0	2R83826	66,25	**198,76**
5/8 x 24	102	32	12,5	10,0	2R83827	97,95	**293,86**
3/4 x 24	112	37	14,0	11,2	2R83829	128,01	**384,02**
7/8 x 20	118	38	16,0	12,5	2R83831	146,29	**438,88**
1 x 20	130	45	16,0	14,0	2R83833	177,11	**531,32**

Tr

JUEGOS DE MACHOS ROSCA TRAPEZOIDAL DIN 103

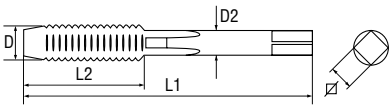
TRAPEZOIDAL THREAD DIN 103
JEUX DE TARAUDS À MAIN FILETAGE ELECTRIQUE DIN 40 430



ACERO 800-900 N/mm²

HSS-G

TOL 7H

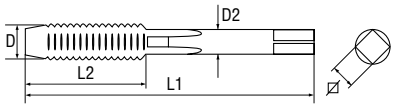


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
Tr 10 x 2	90	34	7	5,5	2R25108	231,78	**695,35**
Tr 10 x 3	100	40	7	5,5	2R25112	231,78	**695,35**
Tr 12 x 3	110	40	8	6,2	2R25116	241,86	**725,59**
Tr 14 x 3	130	45	10	8,0	2R25120	316,72	**950,16**
Tr 14 x 4	130	55	10	8,0	2R25124	316,72	**950,16**
Tr 16 x 4	140	55	11	9,0	2R25128	285,05	**855,15**
Tr 18 x 4	150	55	12	9,0	2R25132	401,04	**1.203,13**
Tr 20 x 4	160	55	14	11,0	2R25136	431,89	**1.295,68**
Tr 22 x 5	175	65	16	12,0	2R25140	549,12	**1.647,37**
Tr 24 x 5	190	65	18	14,5	2R25144	610,82	**1.832,47**
Tr 26 x 5	210	70	20	16,0	2R25148	666,35	**1.999,05**
Tr 28 x 5	220	70	22	18,0	2R25152	728,05	**2.184,14**
Tr 30 x 6	240	80	22	18,0	2R25156	783,58	**2.350,74**
Tr 32 x 6	255	80	25	20,0	2R25160	950,16	**2.850,49**

M JUEGO DE MACHOS MÉTRICA COBALTO
COBALT METRIC HAND TAPS
JEUX DE TARAUDS À MAIN COBALT, METRIQUE



ACERO 800 -1100 N/mm² · INOX · HSS-CO 5% · DIN 352 · TOL 6H

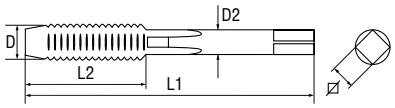


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R57326	9,25	**27,74**
M 4 x 0,70	45	13	4,5	3,4	2R57330	9,25	**27,74**
M 5 x 0,80	50	16	6,0	4,9	2R57334	9,25	**27,74**
M 6 x 1,00	50	19	6,0	4,9	2R57338	9,25	**27,74**
M 8 x 1,25	56	22	6,0	4,9	2R57342	10,43	**31,29**
M 10 x 1,50	70	24	7,0	5,5	2R57346	13,87	**41,60**
M 12 x 1,75	75	29	9,0	7,0	2R57350	18,48	**55,45**
M 14 x 2,00	80	30	11,0	9,0	2R57354	22,55	**67,64**
M 16 x 2,00	80	32	12,0	9,0	2R57358	30,04	**90,13**
M 18 x 2,50	95	40	14,0	11,0	2R57362	34,67	**104,00**
M 20 x 2,50	95	40	16,0	12,0	2R57366	41,60	**124,79**
M 22 x 2,50	100	40	18,0	14,5	2R57370	53,15	**159,45**
M 24 x 3,00	110	50	18,0	14,5	2R57374	60,08	**180,25**
M 27 x 3,00	110	50	20,0	16,0	2R57376	97,70	**293,11**
M 30 x 3,50	125	56	22,0	18,0	2R57378	135,28	**405,83**

M JUEGO DE MACHOS MÉTRICA CON PUNTA PILOTO COBALTO
COBALT METRIC HAND TAPS ROUGHER PILOTED
JEUX DE TARAUDS À MAIN COBALT RECTIFIÉ ETAGÉ



INOX · ACERO 800 -1100 N/mm² · F · HSS-CO 5% · DIN 352 · TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R57726	18,63	**55,88**
M 4 x 0,70	45	13	4,5	3,4	2R57730	18,63	**55,88**
M 5 x 0,80	50	16	6,0	4,9	2R57734	19,97	**59,92**
M 6 x 1,00	50	19	6,0	4,9	2R57738	19,97	**59,92**
M 8 x 1,25	56	22	6,0	4,9	2R57742	21,84	**65,53**
M 10 x 1,50	70	24	7,0	5,5	2R57746	29,29	**87,86**
M 12 x 1,75	75	29	9,0	7,0	2R57750	39,94	**119,82**

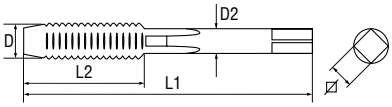
Mf JUEGOS DE MACHOS MANO MÉTRICA FINA COBALTO

COBALT METRIC FINE HAND TAPS

JEUX DE TARAUDS À MAIN, METRIQUE FIN



ACERO 800 -1100 N/mm² | INOX | HSS-CO 5% | DIN 2181 | TOL 6H



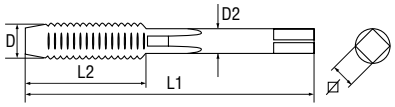
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 6 x 0,75	50	14	6,0	4,9	2R56318	18,65	**37,31**
M 8 x 0,75	50	19	6,0	4,9	2R56324	18,65	**37,31**
M 8 x 1,00	56	22	6,0	4,9	2R56326	18,65	**37,31**
M 10 x 1,00	63	20	7,0	5,5	2R56336	20,13	**40,27**
M 10 x 1,25	70	24	7,0	5,5	2R56338	23,40	**46,79**
M 12 x 1,00	70	22	9,0	7,0	2R56344	28,14	**56,28**
M 12 x 1,25	70	22	9,0	7,0	2R56346	28,14	**56,28**
M 12 x 1,50	70	22	9,0	7,0	2R56348	28,14	**56,28**
M 14 x 1,25	70	22	11,0	9,0	2R56354	33,48	**66,97**
M 14 x 1,50	70	22	11,0	9,0	2R56356	29,61	**59,22**
M 16 x 1,50	70	22	12,0	9,0	2R56366	37,31	**74,63**
M 18 x 1,50	80	22	14,0	11,0	2R56372	39,09	**78,18**
M 18 x 2,00	80	22	14,0	11,0	2R56374	51,82	**103,64**
M 20 x 1,50	80	22	16,0	12,0	2R56384	48,86	**97,72**
M 20 x 2,00	80	22	16,0	12,0	2R56386	65,16	**130,31**
M 22 x 1,50	80	22	18,0	14,5	2R56394	60,71	**121,42**
M 22 x 2,00	80	22	18,0	14,5	2R56396	65,16	**130,31**
M 24 x 1,50	90	22	18,0	14,5	2R56504	70,02	**140,04**

G(BSP) JUEGOS DE MACHOS ROSCA GAS DIN ISO 228 COBALTO

COBALT HAND TAPS PIPE THREAD DIN ISO 228
JEUX DE TARAUDS À MAIN FILETAGE
PAS GAZ DIN ISO 228 COBALT



ACERO 800-1100 N/mm² | INOX | HSS-CO 5% | DIN 5157

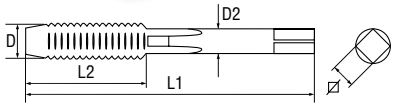


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⍁ (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R55312	18,65	**37,31**
G 1/4 x 19	70	22	11,0	9,0	2R55314	21,91	**43,82**
G 3/8 x 19	70	22	12,0	9,0	2R55316	32,87	**65,75**
G 1/2 x 14	80	22	16,0	12,0	2R55318	45,30	**90,61**
G 3/4 x 14	90	22	20,0	16,0	2R55322	62,19	**124,38**
G 1 x 11	100	25	25,0	20,0	2R55326	100,69	**201,38**

M JUEGO DE MACHOS MÉTRICA IZQUIERDAS
METRIC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE



HSS-G | DIN 352 | TOL 6H | LH



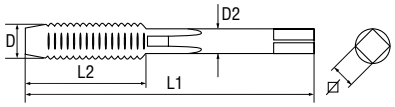
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R27026	11,24	**33,73**
M 4 x 0,70	45	13	4,5	3,4	2R27030	10,69	**32,08**
M 5 x 0,80	50	16	6,0	4,9	2R27034	11,24	**33,73**
M 6 x 1,00	50	19	6,0	4,9	2R27038	11,24	**33,73**
M 8 x 1,25	56	22	6,0	4,9	2R27042	12,57	**37,70**
M 10 x 1,50	70	24	7,0	5,5	2R27046	17,04	**51,11**
M 12 x 1,75	75	29	9,0	7,0	2R27050	22,31	**66,92**
M 14 x 2,00	80	30	11,0	9,0	2R27054	27,01	**81,03**
M 16 x 2,00	80	32	12,0	9,0	2R27058	38,03	**114,08**
M 18 x 2,50	95	40	14,0	11,0	2R27062	51,16	**153,49**
M 20 x 2,50	95	40	16,0	12,0	2R27066	54,54	**163,61**
M 22 x 2,50	100	40	18,0	14,5	2R27070	68,19	**204,58**
M 24 x 3,00	110	50	18,0	14,5	2R27074	90,92	**272,76**
M 27 x 3,00	110	50	20,0	16,0	2R27076	114,30	**342,90**
M 30 x 3,50	125	56	22,0	18,0	2R27078	164,83	**494,50**
M 33 x 3,50	125	56	25,0	20,0	2R27080	217,61	**652,84**
M 36 x 4,00	150	63	28,0	22,0	2R27082	273,17	**819,52**
M 39 x 4,00	150	63	32,0	24,0	2R27084	316,23	**948,70**
M 42 x 4,50	150	63	32,0	24,0	2R27086	379,80	**1.139,41**
M 45 x 4,50	160	70	36,0	29,0	2R27088	435,64	**1.306,93**
M 48 x 5,00	180	75	36,0	29,0	2R27090	546,35	**1.639,05**
M 52 x 5,00	180	75	40,0	32,0	2R27092	612,06	**1.836,18**

Mf JUEGO DE MACHOS MÉTRICA FINA IZQUIERDAS

FINE METRIC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE FIN



HSS-G | DIN 2181 | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 6 x 0,75	50	14	6,0	4,9	2R26007	22,04	**44,07**
M 8 x 0,75	50	19	6,0	4,9	2R26010	26,97	**53,94**
M 8 x 1,00	56	22	6,0	4,9	2R26011	21,00	**42,00**
M 10 x 1,00	63	20	7,0	5,5	2R26015	22,14	**44,29**
M 10 x 1,25	70	24	7,0	5,5	2R26016	24,78	**49,55**
M 12 x 1,00	70	22	9,0	7,0	2R26020	36,39	**72,78**
M 12 x 1,25	70	22	9,0	7,0	2R26021	36,39	**72,78**
M 12 x 1,50	70	22	9,0	7,0	2R26022	32,09	**64,19**
M 14 x 1,25	70	22	11,0	9,0	2R26027	47,17	**94,35**
M 14 x 1,50	70	22	11,0	9,0	2R26028	37,74	**75,47**
M 16 x 1,00	70	22	12,0	9,0	2R26031	61,32	**122,64**
M 16 x 1,50	70	22	12,0	9,0	2R26033	45,89	**91,79**
M 18 x 1,50	80	22	14,0	11,0	2R26036	58,40	**116,81**
M 20 x 1,50	80	22	16,0	12,0	2R26040	76,67	**153,34**
M 22 x 1,50	80	22	18,0	14,5	2R26045	83,57	**167,14**
M 24 x 1,50	90	22	18,0	14,5	2R26050	111,32	**222,63**
M 24 x 2,00	90	22	18,0	14,5	2R26051	121,31	**242,61**
M 30 x 1,50	90	22	22,0	18,0	2R26063	190,03	**380,06**
M 30 x 2,00	90	22	22,0	18,0	2R26064	215,63	**431,27**

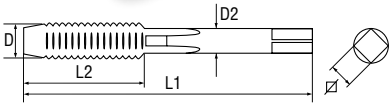
UNC JUEGO DE MACHOS ROSCA UNIFICADA ANSI B 1.1 IZQUIERDAS

UNC LEFT HAND TAPS

JEUX DE TARAUDS À MAIN À GAUCHE, UNC



ACERO 400-800 N/mm² | HSS-G | ≈DIN 352 | TOL 2B | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
UNC Nr, 6 x 32	45	14	4,0	3,0	2R23006	34,84	**104,53**
UNC Nr. 8 x 32	45	14	4,5	3,4	2R23008	34,84	**104,53**
UNC Nr. 10 x 24	50	16	6,0	4,9	2R23010	34,84	**104,53**
UNC Nr. 12 x 24	50	18	6,0	4,9	2R23012	34,84	**104,53**
UNC 1/4 x 20	50	19	6,0	4,9	2R23014	22,92	**68,76**
UNC 5/16 x 18	56	22	6,0	4,9	2R23016	26,60	**79,79**
UNC 3/8 x 16	70	24	7,0	5,5	2R23018	29,35	**88,04**
UNC 7/16 x 14	70	24	6,2	6,2	2R23020	38,50	**115,51**
UNC 1/2 x 13	75	29	9,0	7,0	2R23022	45,85	**137,54**
UNC 9/16 x 12	80	30	11,0	9,0	2R23024	53,17	**159,52**
UNC 5/8 x 11	80	32	12,0	9,0	2R23026	64,17	**192,52**
UNC 3/4 x 10	95	40	14,0	11,0	2R23030	94,89	**284,68**
UNC 7/8 x 9	100	40	18,0	14,5	2R23034	105,90	**317,69**
UNC 1 x 8	110	50	18,0	14,5	2R23038	163,66	**490,99**

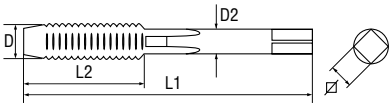
UNF JUEGO DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1 IZQUIERDAS

UNF LEFT HAND TAPS

JEUX DE TARAUDS À MAIN À GAUCHE, UNF



ACERO 400-800 N/mm² | HSS-G | DIN 2181 | TOL 2B | LH



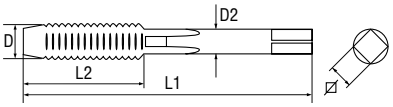
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
Nr. 10 x 32	45	14	6,0	4,9	2R24010	32,34	**64,69**
UNF 1/4 x 28	50	18	6,0	4,9	2R24014	23,38	**46,76**
UNF 5/16 x 24	56	22	6,0	4,9	2R24016	24,75	**49,51**
UNF 3/8 x 24	63	22	7,0	5,5	2R24018	31,64	**63,29**
UNF 7/16 x 20	63	22	8,0	6,2	2R24020	34,38	**68,76**
UNF 1/2 x 20	75	24	9,0	7,0	2R24022	39,90	**79,79**
UNF 9/16 x 18	80	28	11,0	9,0	2R24024	50,46	**100,93**
UNF 5/8 x 18	80	28	12,0	9,0	2R24026	61,88	**123,77**
UNF 3/4 x 16	95	32	14,0	11,0	2R24030	79,76	**159,52**
UNF 7/8 x 14	100	36	18,0	14,5	2R24034	108,30	**216,60**
UNF 1 x 12	110	40	18,0	14,5	2R24038	151,62	**303,25**

BSW JUEGO DE MACHOS WHITWORTH BS 84 IZQUIERDAS

WHITWORTH BS 84 LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, WHITWORTH BS 84



HSS-G | ≈DIN 351 | LH



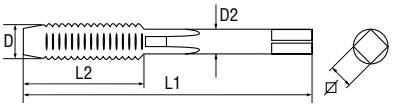
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
BSW 1/8 x 40	40	12	3,5	2,7	2R22006	15,83	**47,49**
BSW 5/32 x 32	45	14	4,5	3,4	2R22008	15,83	**47,49**
BSW 3/16 x 24	50	18	6,0	4,9	2R22010	15,83	**47,49**
BSW 1/4 x 20	50	19	6,0	4,9	2R22014	17,57	**52,71**
BSW 5/16 x 18	56	22	6,0	4,9	2R22016	20,30	**60,89**
BSW 3/8 x 16	70	24	7,0	5,5	2R22018	23,84	**71,51**
BSW 7/16 x 14	70	24	8,0	6,2	2R22020	30,81	**92,42**
BSW 1/2 x 12	75	29	9,0	7,0	2R22022	34,84	**104,51**
BSW 9/16 x 12	80	30	11,0	9,0	2R22024	48,14	**144,43**
BSW 5/8 x 11	80	32	12,0	9,0	2R22026	54,87	**164,60**
BSW 3/4 x 10	95	40	14,0	11,0	2R22030	69,31	**207,94**
BSW 7/8 x 9	100	40	18,0	14,5	2R22034	86,65	**259,94**
BSW 1 x 8	110	50	18,0	14,5	2R22038	115,52	**346,57**

G(BSP) JUEGO DE MACHOS ROSCA GAS DIN ISO 228 IZQUIERDAS

BSP LEFT HAND TAP SETS
JEUX DE TARAUDS À MAIN À GAUCHE, BSP

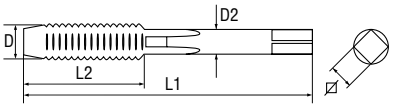


HSS-G | DIN 5157 | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R25012	28,24	**56,49**
G 1/4 x 19	70	22	11,0	9,0	2R25014	38,51	**77,02**
G 3/8 x 19	70	22	12,0	9,0	2R25016	48,77	**97,54**
G 1/2 x 14	80	22	16,0	12,0	2R25018	69,31	**138,62**
G 5/8 x 14	80	22	18,0	14,5	2R25020	96,27	**192,55**
G 3/4 x 14	90	22	20,0	16,0	2R25022	110,02	**220,04**
G 1 x 11	100	25	25,0	20,0	2R25026	182,35	**364,70**
G 1.1/8 x 11	125	40	28,0	22,0	2R25030	241,16	**482,33**
G 1.1/4 x 11	125	40	32,0	24,0	2R25034	288,81	**577,61**
G 1.3/8 x 11	140	40	36,0	29,0	2R25038	346,56	**693,12**
G 1.1/2 x 11	140	40	36,0	29,0	2R25042	397,11	**794,21**
G 1.3/4 x 11	140	40	40,0	32,0	2R25050	693,12	**1.386,24**
G 2 x 11	160	40	45,0	35,0	2R25054	758,10	**1.516,21**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



PUNTA EN ESPIRAL (PASANTE) • *SPIRAL POINT (THROUGH)* • *POINTE SPIRALE (INTERNE)*

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 352 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61526	**9,90**
M 4 x 0,70	45	13	4,5	3,4	3R61530	**9,90**
M 5 x 0,80	48	16	6,0	4,9	3R61534	**9,90**
M 6 x 1,00	50	19	6,0	4,9	3R61538	**9,90**
M 8 x 1,25	56	22	6,0	4,9	3R61542	**11,75**
M 10 x 1,50	70	24	7,0	5,5	3R61546	**14,84**
M 12 x 1,75	75	29	9,0	7,0	3R61550	**19,17**
M 14 x 2,00	80	30	11,0	9,0	3R61554	**24,12**
M 16 x 2,00	80	32	12,0	9,0	3R61558	**29,35**
M 18 x 2,50	95	40	14,0	11,0	3R61562	**38,61**
M 20 x 2,50	95	40	16,0	12,0	3R61566	**44,81**
M 22 x 2,50	100	40	18,0	14,5	3R61570	**55,62**
M 24 x 3,00	110	50	18,0	14,5	3R61574	**64,90**

HELICOIDAL 35° (CIEGO) • *35° SPIRAL FLUTE (BLIND)* • *HÉLICOÏDAL (AVEUGLE)*

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 352 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61726	**12,05**
M 4 x 0,70	45	13	4,5	3,4	3R61730	**12,05**
M 5 x 0,80	48	16	6,0	4,9	3R61734	**12,05**
M 6 x 1,00	50	19	6,0	4,9	3R61738	**12,05**
M 8 x 1,25	56	22	6,0	4,9	3R61742	**13,89**
M 10 x 1,50	70	24	7,0	5,5	3R61746	**17,61**
M 12 x 1,75	75	29	9,0	7,0	3R61750	**22,25**

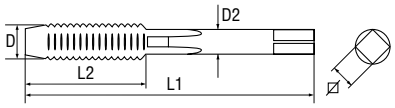
CON DIENTE ALTERNO (PASANTE) • *WIHT INTERRUPTED THREADS (THROUGH)* • *AVEC ALTERNANCE DENT (INTERNE)*

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 352 | FORM B-AZ | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61926	**15,13**
M 4 x 0,70	45	13	4,5	3,4	3R61930	**15,13**
M 5 x 0,80	48	16	6,0	4,9	3R61934	**15,13**
M 6 x 1,00	50	19	6,0	4,9	3R61938	**15,13**
M 8 x 1,25	56	22	6,0	4,9	3R61942	**16,37**
M 10 x 1,50	70	24	7,0	5,5	3R61946	**20,09**
M 12 x 1,75	75	29	9,0	7,0	3R61950	**23,48**

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



FORMA B • *FORM B • FORME B*



ACERO 400-800 N/mm² | HSS-G | ISO 529 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,0 x 0,40	41,0	8,0	2,50	2,00	3R80516	**13,07**
M 2,5 x 0,45	44,5	9,5	2,80	2,24	3R80522	**13,07**
M 2,6 x 0,45	44,5	9,5	2,90	2,24	3R80524	**13,07**
M 3,0 x 0,50	48,0	11,0	3,15	2,50	3R80526	**7,69**
M 3,5 x 0,60	50,0	13,0	3,55	2,80	3R80528	**8,17**
M 4,0 x 0,70	53,0	13,0	4,00	3,15	3R80530	**7,69**
M 5,0 x 0,80	58,0	16,0	5,00	4,00	3R80534	**8,40**
M 6,0 x 1,00	66,0	19,0	6,30	5,00	3R80538	**8,64**
M 8,0 x 1,25	72,0	22,0	8,00	6,30	3R80542	**10,97**
M 10,0 x 1,50	80,0	24,0	10,00	8,00	3R80546	**13,53**
M 12,0 x 1,75	89,0	29,0	9,00	7,10	3R80550	**19,14**
M 14,0 x 2,00	95,0	30,0	11,20	9,00	3R80554	**21,69**
M 16,0 x 2,00	102,0	32,0	12,50	10,00	3R80558	**26,83**
M 18,0 x 2,50	110,0	37,0	14,00	11,20	3R80562	**38,50**
M 20,0 x 2,50	112,0	37,0	14,00	11,20	3R80566	**43,17**
M 22,0 x 2,50	118,0	38,0	16,00	12,50	3R80570	**51,34**
M 24,0 x 3,00	130,0	45,0	18,00	14,00	3R80574	**58,34**
M 27,0 x 3,00	135,0	45,0	20,00	16,00	3R80576	**81,67**
M 30,0 x 3,50	138,0	48,0	20,00	16,00	3R80578	**107,35**

CON DIENTE ALTERNO (PASANTE)
WIHT INTERRUPTED THREADS (THROUGH)
AVEC ALTERNANCE DENT (INTERNE)



ACERO 400-800 N/mm² | HSS-G | ISO 529 | FORM B-AZ | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	48,0	11,0	3,15	2,50	3R80926	**11,66**
M 4 x 0,70	53,0	13,0	4,00	3,15	3R80930	**11,33**
M 5 x 0,80	58,0	16,0	5,00	4,00	3R80934	**12,14**
M 6 x 1,00	66,0	19,0	6,30	5,00	3R80938	**12,14**
M 7 x 1,00	66,0	19,0	7,10	5,60	3R80940	**14,69**
M 8 x 1,25	72,0	22,0	8,00	6,30	3R80942	**12,83**
M 10 x 1,50	80,0	24,0	10,00	8,00	3R80946	**16,09**
M 12 x 1,75	89,0	29,0	9,00	7,10	3R80950	**20,31**
M 14 x 2,00	95,0	30,0	11,20	9,00	3R80954	**27,77**
M 16 x 2,00	102,0	32,0	12,50	10,00	3R80958	**31,03**
M 18 x 2,50	110,0	37,0	14,00	11,20	3R80962	**46,67**
M 20 x 2,50	112,0	37,0	14,00	11,20	3R80966	**53,67**
M 22 x 2,50	118,0	38,0	16,00	12,50	3R80970	**60,67**
M 24 x 3,00	130,0	45,0	18,00	14,00	3R80974	**67,67**

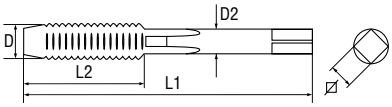
M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13

FORMA C/35° RPS • *FORM C/35° RPS*



ACERO 400-800 N/mm²

HSS-G | ISO 529 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,5 x 0,45	44,5	9,5	2,80	2,24	3R80722	**16,81**
M 2,6 x 0,45	44,5	9,5	2,90	2,24	3R80724	**16,81**
M 3,0 x 0,50	48,0	11,0	3,15	2,50	3R80726	**10,03**
M 4,0 x 0,70	53,0	13,0	4,00	3,15	3R80730	**10,03**
M 5,0 x 0,80	58,0	16,0	5,00	4,00	3R80734	**10,03**
M 6,0 x 1,00	66,0	19,0	6,30	5,00	3R80738	**10,26**
M 8,0 x 1,25	72,0	22,0	8,00	6,30	3R80742	**12,14**
M 10,0 x 1,50	80,0	24,0	10,00	8,00	3R80746	**15,64**
M 12,0 x 1,75	89,0	29,0	9,00	7,10	3R80750	**20,31**
M 14,0 x 2,00	95,0	30,0	11,20	9,00	3R80754	**27,77**
M 16,0 x 2,00	102,0	32,0	12,50	10,00	3R80758	**31,03**
M 18,0 x 2,50	110,0	37,0	14,00	11,20	3R80762	**46,67**
M 20,0 x 2,50	112,0	37,0	14,00	11,20	3R80766	**53,67**
M 22,0 x 2,50	118,0	38,0	16,00	12,00	3R80770	**60,67**
M 24,0 x 3,00	130,0	45,0	18,00	14,00	3R80774	**67,67**
M 27,0 x 3,00	135,0	45,0	20,00	16,00	3R80776	**98,01**
M 30,0 x 3,50	138,0	48,0	20,00	16,00	3R80778	**128,35**

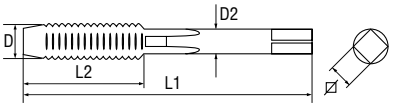
Mf MÉTRICA FINA ISO ROSCA DIN 13

METRIC FINE ISO THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



ACERO 400-800 N/mm²

HSS-G | DIN 2181 | FORM D | TOL 6H



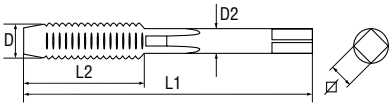
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 6 x 0,75	50	14	6,0	4,9	3R66318	**14,39**
M 8 x 0,75	50	19	6,0	4,9	3R66324	**14,39**
M 8 x 1,00	56	22	6,0	4,9	3R66326	**14,39**
M 9 x 0,75	56	19	7,0	5,5	3R66328	**16,08**
M 9 x 1,00	63	20	7,0	5,5	3R66330	**16,08**
M 10 x 0,75	63	20	7,0	5,5	3R66332	**16,08**
M 10 x 1,00	63	20	7,0	5,5	3R66336	**14,39**
M 10 x 1,25	70	24	7,0	5,5	3R66338	**16,08**
M 12 x 1,00	70	22	9,0	7,0	3R66344	**20,82**
M 12 x 1,25	70	22	9,0	7,0	3R66346	**20,82**
M 12 x 1,50	70	22	9,0	7,0	3R66348	**19,29**
M 13 x 1,00	70	22	11,0	9,0	3R66350	**32,14**
M 13 x 1,50	70	22	11,0	9,0	3R66351	**32,14**
M 14 x 1,00	70	22	11,0	9,0	3R66353	**32,14**
M 14 x 1,25	70	22	11,0	9,0	3R66354	**24,20**
M 14 x 1,50	70	22	11,0	9,0	3R66356	**20,82**
M 15 x 1,50	70	22	12,0	9,0	3R66360	**35,52**
M 16 x 1,50	70	22	12,0	9,0	3R66366	**25,71**
M 18 x 1,00	80	22	14,0	11,0	3R66370	**38,58**
M 18 x 1,50	80	22	14,0	11,0	3R66372	**29,08**
M 20 x 1,50	80	22	16,0	12,0	3R66384	**35,52**
M 20 x 2,00	80	22	16,0	12,0	3R66386	**48,37**
M 22 x 1,50	80	22	18,0	14,5	3R66394	**45,31**
M 22 x 2,00	80	22	18,0	14,5	3R66396	**48,37**
M 24 x 1,50	90	22	18,0	14,5	3R66504	**48,97**
M 24 x 2,00	90	22	18,0	14,5	3R66506	**64,29**
M 25 x 1,50	90	22	18,0	14,5	3R66508	**96,43**
M 26 x 1,50	90	22	18,0	14,5	3R66512	**90,97**
M 27 x 1,50	90	22	20,0	16,0	3R66517	**90,97**
M 28 x 1,50	90	22	20,0	16,0	3R66522	**109,74**
M 30 x 1,50	90	22	22,0	18,0	3R66530	**121,31**
M 30 x 2,00	90	22	22,0	18,0	3R66532	**121,31**
M 32 x 1,50	90	22	22,0	18,0	3R66536	**121,31**

BSW WHITWORTH BS 84

WHITWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm² | HSS-G | DIN 351 | ≈DIN 352 | FORM D



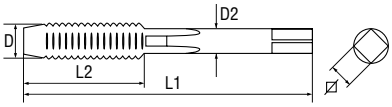
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 40	40	12	3,5	2,7	3R62306	**10,41**
3/16 x 24	50	18	6,0	4,9	3R62310	**10,41**
1/4 x 20	50	19	6,0	4,9	3R62314	**10,41**
5/16 x 18	56	22	6,0	4,9	3R62316	**11,32**
3/8 x 16	70	24	7,0	5,5	3R62318	**12,87**
7/16 x 14	70	24	8,0	6,2	3R62320	**16,08**
1/2 x 12	75	29	9,0	7,0	3R62322	**19,29**
9/16 x 12	80	30	11,0	9,0	3R62324	**25,10**
5/8 x 11	80	32	12,0	9,0	3R62326	**28,46**
3/4 x 10	95	40	14,0	11,0	3R62330	**37,96**
7/8 x 9	100	40	18,0	14,5	3R62334	**46,86**
1 x 8	110	50	18,0	14,5	3R62338	**56,33**

G(BSP) GAS DIN ISO 228

BSP PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm² | HSS-G | DIN 5157 | FORM D



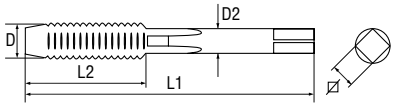
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	63	20	7	5,5	3R65312	**13,77**
G 1/4 x 19	70	22	11	9,0	3R65314	**15,30**
G 3/8 x 19	70	22	12	9,0	3R65316	**22,65**
G 1/2 x 14	80	22	16	12,0	3R65318	**29,08**
G 3/4 x 14	90	22	20	16,0	3R65322	**41,94**
G 1 x 11	100	25	25	20,0	3R65326	**72,57**
G 1.1/4 x 11	125	40	32	24,0	3R65334	**120,92**
G 1.1/2 x 11	140	40	32	29,0	3R65342	**153,07**
G 1.3/4 x 11	140	40	40	32,0	3R65350	**321,43**
G 2 x 11	160	40	45	35,0	3R65354	**321,43**
G 2.1/4 x 11	160	40	50	39,0	3R65358	**766,60**
G 2.1/2 x 11	160	40	50	39,0	3R65362	**873,48**
G 2.3/4 x 11	160	40	50	39,0	3R65366	**1.391,75**
G 3 x 11	160	40	50	39,0	3R65370	**1.619,33**
G 3.1/2 x 11	180	45	56	44,0	3R65374	**2.532,23**
G 4 x 11	180	45	56	44,0	3R65378	**3.153,75**

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1 UNC

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm² | HSS-G | ≈DIN 352 | FORM D | TOL 2B



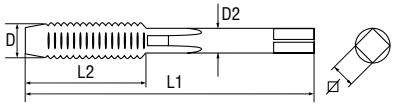
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
1/4 x 20	50	19	6,0	4,9	3R63314	**10,41**
5/16 x 18	56	22	6,0	4,9	3R63316	**11,32**
3/8 x 16	70	24	7,0	5,5	3R63318	**12,87**
7/16 x 14	70	24	8,0	6,2	3R63320	**16,08**
1/2 x 13	75	29	9,0	7,0	3R63322	**19,29**
19/16 x 12	80	30	11,0	9,0	3R63324	**25,10**
5/8 x 11	80	32	12,0	9,0	3R63326	**28,46**
3/4 x 10	95	40	14,0	11,0	3R63330	**37,96**
7/8 x 9	100	40	18,0	14,5	3R63334	**46,86**
1 x 8	110	50	18,0	14,5	3R63338	**56,33**

UNF ROSCA FINA UNIFICADA ANSI B 1.1 UNF

UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



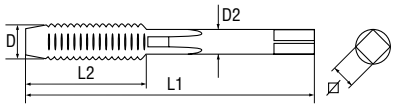
ACERO 400-800 N/mm² | HSS-G | ≈DIN 352 | FORM D | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
1/4 x 28	50	18	6,0	4,9	3R64314	**10,41**
5/16 x 24	56	22	6,0	4,9	3R64316	**11,32**
3/8 x 24	63	22	7,0	5,5	3R64318	**12,87**
7/16 x 20	63	22	8,0	6,2	3R64320	**16,08**
1/2 x 20	75	24	9,0	7,0	3R64322	**19,29**
19/16 x 18	80	28	11,0	9,0	3R64324	**25,10**
5/8 x 18	80	28	12,0	9,0	3R64326	**28,46**
3/4 x 16	95	32	14,0	11,0	3R64330	**37,96**
7/8 x 14	100	36	18,0	14,5	3R64334	**46,86**
1 x12	110	40	18,0	14,5	3R64338	**56,33**

NPT ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16

NPT AMERICAN TAPERED THREAD, TAPER 1:16
FILETAGE AMERICAIN NPT CONICITÉ 1:16



ACERO 400-800 N/mm² | HSS-G | FORM C



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
NPT 1/16 x 27	65	19	7,0	5,5	3R63510	**37,49**
NPT 1/8 x 27	65	19	7,0	5,5	3R63512	**31,23**
NPT 1/4 x 18	70	25	11,0	9,0	3R63514	**34,21**
NPT 3/8 x 18	75	26	12,0	9,0	3R63516	**47,59**
NPT 1/2 x 14	80	31	16,0	12,0	3R63518	**59,49**
NPT 3/4 x 14	100	33	20,0	16,0	3R63522	**78,23**
NPT 1 x 11.5	110	38	25,0	20,0	3R63526	**124,95**
NPT 1.1/4 x 11.5	125	41	32,0	24,0	3R63534	**187,41**
NPT 1.1/2 x 11.5	140	42	36,0	29,0	3R63542	**351,01**
NPT 2 x 11.5	160	44	36,0	35,0	3R63554	**431,32**

ACERO 400-800 N/mm² | HSS-G | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
NPT 1/16 x 27	55	17,5	8,0	6,0	3R98502	**47,00**
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98506	**37,49**
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98514	**37,49**
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98518	**56,53**
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98522	**70,51**
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98530	**94,00**
NPT 1 x 11.5	95	45,0	26,0	21,0	3R98538	**150,51**
NPT 1.1/4 x 11.5	105	45,0	32,0	26,0	3R98546	**226,06**
NPT 1.1/2 x 11.5	110	45,0	38,0	29,0	3R98554	**374,81**
NPT 2 x 11.5	120	50,0	46,0	35,0	3R98570	**470,01**

ACERO 400-800 N/mm² | HSS-G | FORM C/35°

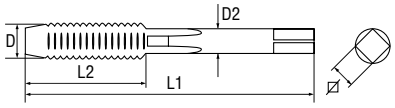


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
NPT 1/16 x 27	55	17,5	6,0	6,0	3R98702	**47,00**
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98706	**37,49**
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98714	**37,49**
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98718	**56,53**
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98722	**70,51**
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98730	**94,00**
NPT 1 x 11.5	95	45,0	26,0	21,0	3R98738	**150,51**
NPT 1.1/4 x 11.5	105	45,0	32,0	26,0	3R98746	**226,06**
NPT 1.1/2 x 11.5	110	45,0	38,0	29,0	3R98754	**374,81**
NPT 2 x 11.5	120	50,0	46,0	35,0	3R98770	**470,01**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G | TOL 6H | 1/4

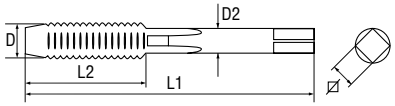


D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67226	**16,50**
M 4 x 0,70	3,3	39	3R67230	**16,50**
M 5 x 0,80	4,2	41	3R67234	**16,50**
M 6 x 1,00	5,0	44	3R67238	**16,50**
M 8 x 1,25	6,8	50	3R67242	**23,59**
M 10 x 1,50	8,5	59	3R67246	**28,29**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G | TIN | TOL 6H | 1/4



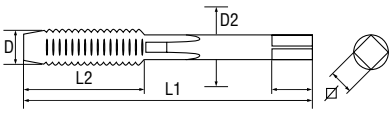
D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67210	**33,76**
M 4 x 0,70	3,3	39	3R67211	**33,76**
M 5 x 0,80	4,2	41	3R67212	**33,76**
M 6 x 1,00	5,0	44	3R67213	**33,76**
M 8 x 1,25	6,8	50	3R67214	**45,32**
M 10 x 1,50	8,5	59	3R67215	**62,51**

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm² | HSS-G | 1/4



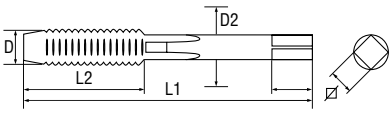
D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 40	2.30	36	3R67280	**23,44**
Nr. 5 x 40	2.60	36	3R67281	**23,44**
Nr. 6 x 32	2.85	39	3R67282	**23,44**
Nr. 8 x 32	3.50	39	3R67283	**23,44**
Nr. 10 x 24	3.90	41	3R67284	**23,44**
Nr. 12 x 24	4.50	41	3R67285	**23,44**
1/4 x 20	5.20	44	3R67286	**23,44**
5/16 x 18	6.60	50	3R67287	**32,81**
3/8 x 16	8.00	59	3R67288	**39,38**

UNF ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm² | HSS-G | 1/4

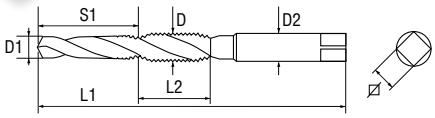


D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 48	2.4	36	3R67290	**23,44**
Nr. 5 x 44	2.7	36	3R67291	**23,44**
Nr. 6 x 40	3.0	39	3R67292	**23,44**
Nr. 8 x 36	3.5	39	3R67293	**23,44**
Nr. 10 x 32	4.1	41	3R67294	**23,44**
Nr. 12 x 28	4.7	41	3R67295	**23,44**
1/4 x 28	5.5	44	3R67296	**23,44**
5/16 x 24	6.9	50	3R67297	**32,81**
3/8 x 24	8.5	59	3R67298	**39,38**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | TOL 6H

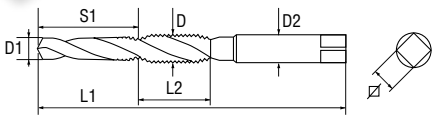


D Ø x P (mm)	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	16	11	2.5	3.0	2.4	3R37026	**34,75**
M 4 x 0,70	63	18	14	3.3	4.0	3.0	3R37030	**34,75**
M 5 x 0,80	71	20	18	4.2	5.0	3.8	3R37034	**34,75**
M 6 x 1,00	80	22	22	5.0	6.0	4.9	3R37038	**34,75**
M 8 x 1,25	95	26	25	6.8	8.0	6.2	3R37042	**50,20**
M 10 x 1,50	106	30	31	8.5	10.0	8.0	3R37046	**57,92**
M 12 x 1,75	115	32	35	10.2	12.0	9.0	3R37050	**64,37**

BSW WHITWORTH BS 84
WHITWORTH BS 84
WHITWORTH BS 84



ACERO 400-800 N/mm² | HSS-CO 5% | TOL 6H



D Ø x P (")	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
Nr. 4 x 48	56	16	11	2.6	3.0	2.4	3R70006	**37,33**
Nr. 5 x 44	63	18	14	3.2	4.0	3.0	3R70008	**37,33**
Nr. 6 x 40	71	20	18	3.7	5.0	3.8	3R70010	**37,33**
Nr. 8 x 36	80	22	22	5.1	6.0	4.9	3R70014	**42,12**
Nr. 10 x 32	95	26	25	6.5	8.0	6.2	3R70016	**47,73**
Nr. 12 x 28	106	30	31	7.9	10.0	8.0	3R70018	**51,94**
1/4 x 28	115	32	35	10.5	12.0	9.0	3R70022	**61,76**

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS PARA MACHOS MÁQUINA

MACHINE TAPS APPLICATION GUIDE AND RECOMMENDED CUTTING SPEED

TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ POUR TARAUDS MACHINE



			HSS-CO 5%			HSS-CO 5% TIN		HSS-CO 5% VAP		HSS-CO 5%
				TOL 6H		TOL 6H		TOL 6H		TOL 6H
			FORM B	FORM C	FORM C/35°	FORM B	FORM C/35°	FORM B	FORM C/35°	FORM C/15°
MATERIAL / *MATERIAL* / *MATIÉRE*		Resistencia *Resistance* *Resistance* N/mm	Pág 267	Pág 266	Pág. 270	Pág. 268	Pág. 271	Pág. 268	Pág. 271	Pág. 269
	Decoletaje *Machining • Décolletage*	<500	5 - 15	5 - 15	5 - 15	20 - 30	20 - 30	20 - 30	20 - 30	5 - 15
ACEROS *STEELS* *ACIERS*	Carbono <0,4% *<0,4% Carbon • Carbon <0,4%*	<850	12 - 18	12 - 18	12 - 18	15 - 20	15 - 20	15 - 25	15 - 25	12 - 18
	Acero para herramientas *Steel for tools • Acier pour outils*	<1.200								
	Templado - Revenido *Tempered - Quenched • Trempé - Revenu*	<1.400								
ACEROS INOXIDABLES *STAINLESS STEEL* *ACIER INOXYDABLE*	Austeníticos Cr-Ni *Cr-Ni Austenitics • Cr-Ni austenitique*	<850								
	Martensíticos Cr-Mo *Cr-Mo Martensitics • Cr-Mo martensitique*	<1.200								
FUNDICIÓN *CAST IRON* *FONTE*	Fundición gris *Grey cast iron • Fonte grise*	<700	10 - 15	10 - 15	10 - 15					
	Fundición dura *Hard cast iron • Fonte dur*	<1.000								
ALUMINIO *ALUMINIUM A* *LUMINIUM*	Puro *Pure • Pure*	<350								
	Si < 10%	<600	10 - 15		10 - 15	10 - 20	10 - 20	20 - 30	20 - 30	
	Si > 10%	<600	10 - 15		10 - 15			20 - 30	20 - 30	
	Zamak *Zamak • Zamak*	<600								
COBRE *COPPER* *CUIVRE*	Bronce *Bronze • Bronze*	<350								
	Cobre viruta larga *Long chip copper • Cuivre coupage long*	<700	15 - 20		15 - 20	15 - 20	15 - 20			
	Cobre viruta corta *Short chip coppe • Cuivre coupage court*	<700								
	Latón duro *Hard Brass • Laiton dur*	<700	10 - 15		10 - 15	20 - 30	20 - 30			
	Latón tenaz *Tough Brass • Laiton tenace*	<700	10 - 15		10 - 15	10 - 15	10 - 15			
TITANIO *TITANIUM* *TITANE*	Puro *Pure • Pure*	<700								
	Aleaciones de Titanio *Titanium alloys • Alliages de titane*	<1.200								
SINTÉTICOS *PLASTICS* *PLASTIQUES*	Termoplásticos *Thermoplastics • Thermoplastique*	-	10 - 15		10 - 15	10 - 20	10 - 20			
	Duroplásticos *Hard-plastics • Duroplastique*	-								

20 - 25 Macho recomendado por SESATOOLS y velocidad de corte
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupage

20 - 25 Buen rendimiento y velocidad de corte (RPM)
Good performance and speed of the cut (RPM)
Bon rendement et vitesse de coup recommendée (RPM)

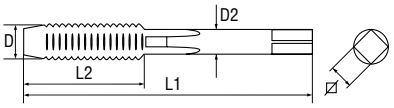
INFORMACIÓN TÉCNICA
TECHNICAL INFORMATION • INFORMATION TÉCHNIQUE



HSS-CO 5%	PM / HL	HSS-E-V3 / TIN	HSS-CO 5%	PM / FUTURA	HSS-CO 5% / ALUSPEED	HSS-CO 5% / TIN
TOL 6H	TOL 6H	TOL 6H	TOL 6H	TOL 6H	TOL 6H	TOL 6HX
FORM B-AZ	FORM B / FORM C/35°	FORM B / FORM C/35°	FORM B / FORM C/39°	FORM B / FORM C/35° / FORM C/15°	FORM B / FORM C/45°	LAMINACIÓN *FORMING TAPS À REFOULER*
Pág. 272	Pág. 304 / Pág. 304	Pág. 305 / Pág. 305	Pág. 306 / Pág. 306	Pág. 311 / Pág. 311 / Pág. 311	Pág. 312 / Pág. 312	Pág. 313 / Pág. 313
	8 - 10 / 8 -1 0					12 - 25 / 12 - 25
	8 - 10 / 8 - 10	8 - 10 / 8 - 10				15 - 25 / 15 - 25
	6 - 8 / 6 - 8	4 - 6 / 4 - 6				
				3 - 8 / 3 - 8 / 3 - 8		
	8 - 14 / 8 - 14	6 - 10 / 6 - 10	5 - 10 / 5 - 10			15 - 25 / 15 - 25
	6 - 10 / 6 -1 0	4 - 7 / 4 - 7				10 - 20 / 10 - 20
		8 - 12 / 8 - 12				
		7 - 10 / 7 - 10				
					15 - 35 / 15 - 35	
10 - 15		12 - 20 / 12 - 20			15 - 35 / 15 - 35	
10 - 15		12 - 20 / 12 - 20			15 - 30 / 15 - 30	
10 - 15					15 - 30 / 15 - 30	
						15 - 35 / 15 - 35
	10 - 15 / 10 - 15	12 - 20 / 12 -2 0				10 - 20 / 10 - 20
	10 - 15 / 10 - 15					
		2 - 8 / 2 - 8	2 - 5 / 2 - 5			
				3 - 8 / 3 - 8 / 3 - 8		10 - 20 / 10 - 20
				10 - 15 / 10 - 15 / 10 - 15		

M MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13





ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C | TOL 6H

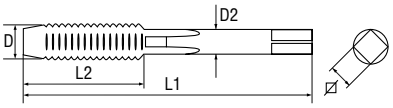
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	8	2,8	2,1	3R37416	**13,45**
M 2,3 x 0,40	45	9	2,8	2,1	3R37418	**13,45**
M 2,5 x 0,45	50	9	2,8	2,1	3R37422	**13,45**
M 2,6 x 0,45	50	9	2,8	2,1	3R37424	**13,45**
M 3,0 x 0,50	56	11	3,5	2,7	3R37426	**10,45**
M 3,5 x 0,60	56	13	4,0	3,0	3R37428	**12,38**
M 4,0 x 0,70	63	13	4,5	3,4	3R37430	**10,63**
M 5,0 x 0,80	70	16	6,0	4,9	3R37434	**10,78**
M 6,0 x 1,00	80	19	6,0	4,9	3R37438	**11,11**
M 7,0 x 1,00	80	19	7,0	5,5	3R37440	**15,12**
M 8,0 x 1,25	90	22	8,0	6,2	3R37442	**13,73**
M 10,0 x 1,50	100	24	10,0	8,0	3R37446	**15,71**



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38426	**10,72**
M 4 x 0,70	63	13	2,8	2,1	3R38430	**10,91**
M 5 x 0,80	70	16	3,5	2,7	3R38434	**11,05**
M 6 x 1,00	80	19	4,5	3,4	3R38438	**11,40**
M 8 x 1,25	90	22	6,0	4,9	3R38442	**14,09**
M 10 x 1,50	100	24	7,0	5,5	3R38446	**16,12**
M 12 x 1,75	110	29	9,0	7,0	3R38450	**19,21**
M 14 x 2,00	110	30	11,0	9,0	3R38454	**25,66**
M 16 x 2,00	110	32	12,0	9,0	3R38458	**29,64**
M 18 x 2,50	125	34	14,0	11,0	3R38462	**39,13**
M 20 x 2,50	140	34	16,0	12,0	3R38466	**53,39**
M 22 x 2,50	140	34	18,0	14,5	3R38470	**61,23**
M 24 x 3,00	160	38	18,0	14,5	3R38474	**67,93**
M 27 x 3,00	160	38	20,0	16,0	3R38476	**105,18**
M 30 x 3,50	180	45	22,0	18,0	3R38478	**112,49**
M 33 x 3,50	180	50	25,0	20,0	3R38480	**152,08**
M 36 x 4,00	200	56	28,0	22,0	3R38482	**238,41**
M 39 x 4,00	200	60	32,0	24,0	3R38484	**307,29**
M 42 x 4,50	200	60	32,0	24,0	3R38486	**351,06**
M 45 x 4,50	220	65	36,0	29,0	3R38488	**398,22**
M 48 x 5,00	250	70	36,0	29,0	3R38490	**434,89**
M 52 x 5,00	250	70	40,0	32,0	3R38492	**537,60**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13





ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM B | TOL 6H

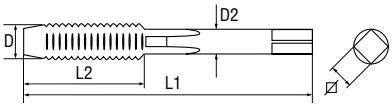
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	8	2,8	2,1	3R37516	**14,62**
M 2,5 x 0,45	50	9	2,8	2,1	3R37522	**15,06**
M 3,0 x 0,50	56	11	3,5	2,7	3R37526	**10,97**
M 3,5 x 0,60	56	13	4,0	3,0	3R37528	**12,27**
M 4,0 x 0,70	63	13	4,5	3,4	3R37530	**10,93**
M 5,0 x 0,80	70	16	6,0	4,9	3R37534	**11,36**
M 6,0 x 1,00	80	19	6,0	4,9	3R37538	**11,90**
M 7,0 x 1,00	80	19	7,0	5,5	3R37540	**15,97**
M 8,0 x 1,25	90	22	8,0	6,2	3R37542	**13,76**
M 10,0 x 1,50	100	24	10,0	8,0	3R37546	**16,55**



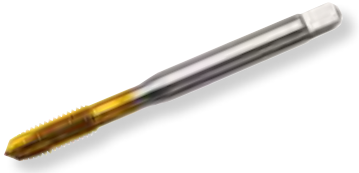
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38526	**11,55**
M 4 x 0,70	63	13	2,8	2,1	3R38530	**11,51**
M 5 x 0,80	70	16	3,5	2,7	3R38534	**11,97**
M 6 x 1,00	80	19	4,5	3,4	3R38538	**12,54**
M 8 x 1,25	90	22	6,0	4,9	3R38542	**14,49**
M 10 x 1,50	100	24	7,0	5,5	3R38546	**17,43**
M 12 x 1,75	110	29	9,0	7,0	3R38550	**22,16**
M 14 x 2,00	110	30	11,0	9,0	3R38554	**28,58**
M 16 x 2,00	110	32	12,0	9,0	3R38558	**33,66**
M 18 x 2,50	125	34	14,0	11,0	3R38562	**47,68**
M 20 x 2,50	140	34	16,0	12,0	3R38566	**56,02**
M 22 x 2,50	140	34	18,0	14,5	3R38570	**63,97**
M 24 x 3,00	160	38	18,0	14,5	3R38574	**73,59**
M 27 x 3,00	160	38	20,0	16,0	3R38576	**112,65**
M 30 x 3,50	180	45	22,0	18,0	3R38578	**120,91**
M 33 x 3,50	180	50	25,0	20,0	3R38580	**161,97**
M 36 x 4,00	200	56	28,0	22,0	3R38582	**266,37**
M 39 x 4,00	200	60	32,0	24,0	3R38584	**343,60**
M 42 x 4,50	200	60	32,0	24,0	3R38586	**393,40**
M 45 x 4,50	220	65	36,0	29,0	3R38588	**446,90**
M 48 x 5,00	250	70	36,0	29,0	3R38590	**490,85**
M 52 x 5,00	250	70	40,0	32,0	3R38592	**598,07**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | TIN | DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R31526	**19,93**
M 4 x 0,70	63	13	4,5	3,4	3R31530	**19,93**
M 5 x 0,80	70	16	6,0	4,9	3R31534	**20,44**
M 6 x 1,00	80	19	6,0	4,9	3R31538	**23,48**
M 8 x 1,25	90	22	8,0	6,2	3R31542	**26,83**
M 10 x 1,50	100	24	10,0	8,0	3R31546	**32,85**
M 12 x 1,75*	110	29	9,0	7,0	3R31550	**40,73**

* Machos en DIN 376

ACERO 400-800 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM B | TOL 6H



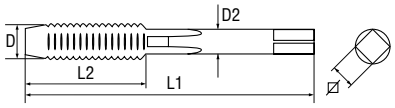
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R31570	**12,80**
M 4 x 0,70	63	13	4,5	3,4	3R31571	**12,80**
M 5 x 0,80	70	16	6,0	4,9	3R31572	**13,97**
M 6 x 1,00	80	19	6,0	4,9	3R31573	**13,97**
M 8 x 1,25	90	22	8,0	6,2	3R31574	**16,76**
M 10 x 1,50	100	24	10,0	8,0	3R31575	**20,49**

ACERO 400-800 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R31576	**26,95**
M 14 x 2,00	110	30	11,0	9,0	3R31577	**35,79**
M 16 x 2,00	110	32	12,0	9,0	3R31578	**39,93**
M 18 x 2,50	125	34	14,0	11,0	3R31579	**57,05**
M 20 x 2,50	140	34	16,0	12,0	3R31580	**77,02**

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² HSS-CO 5% DIN 371 FORM C/15° TOL 6H



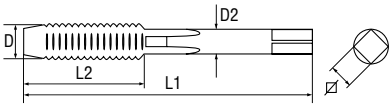
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,0 x 0,50	56	11	3,5	2,7	3R37626	**14,03**
M 3,5 x 0,60	56	13	4,0	3,0	3R37628	**15,80**
M 4,0 x 0,70	63	13	4,5	3,4	3R37630	**14,03**
M 5,0 x 0,80	70	16	6,0	4,9	3R37634	**14,56**
M 6,0 x 1,00	80	19	6,0	4,9	3R37638	**14,73**
M 7,0 x 1,00	80	19	7,0	5,5	3R37640	**20,46**
M 8,0 x 1,25	90	22	8,0	6,2	3R37642	**17,76**
M 10,0 x 1,50	100	24	10,0	8,0	3R37646	**21,94**

ACERO 400-800 N/mm² HSS-CO 5% DIN 376 FORM C/15° TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€ €/Unid.
M 3 x 0,50	56	11	2,2	-	3R38626	**14,67**
M 4 x 0,70	63	13	2,8	2,1	3R38630	**14,67**
M 5 x 0,80	70	16	3,5	2,7	3R38634	**15,24**
M 6 x 1,00	80	19	4,5	3,4	3R38638	**15,40**
M 8 x 1,25	90	22	6,0	4,9	3R38642	**18,56**
M 10 x 1,50	100	24	7,0	5,5	3R38646	**21,94**
M 12 x 1,75	110	29	9,0	7,0	3R38650	**27,39**
M 14 x 2,00	110	30	11,0	9,0	3R38654	**34,37**
M 16 x 2,00	110	32	12,0	11,0	3R38658	**40,65**
M 18 x 2,50	125	34	14,0	11,0	3R38662	**55,58**
M 20 x 2,50	140	34	16,0	12,0	3R38666	**73,80**
M 22 x 2,50	140	34	18,0	14,5	3R38670	**84,84**
M 24 x 3,00	160	38	18,0	14,5	3R38674	**90,36**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C/35° | TOL 6H



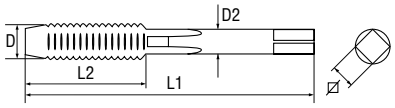
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	6	2,8	2,1	3R37716	**17,06**
M 2,5 x 0,45	50	6	2,8	2,1	3R37722	**17,57**
M 3,0 x 0,50	56	6	3,5	2,7	3R37726	**13,10**
M 3,5 x 0,60	56	13	4,0	3,0	3R37728	**15,36**
M 4,0 x 0,70	63	7	4,5	3,4	3R37730	**13,10**
M 5,0 x 0,80	70	8	6,0	4,9	3R37734	**13,75**
M 6,0 x 1,00	80	10	6,0	4,9	3R37738	**13,75**
M 7,0 x 1,00	80	19	7,0	5,5	3R37740	**18,34**
M 8,0 x 1,25	90	14	8,0	6,2	3R37742	**16,64**
M 10,0 x 1,50	100	16	10,0	8,0	3R37746	**19,44**

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C/35° | TOL 6H



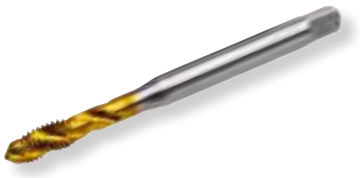
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	2,2	-	3R38726	**13,73**
M 4 x 0,70	63	7	2,8	2,1	3R38730	**13,73**
M 5 x 0,80	70	8	3,5	2,7	3R38734	**14,42**
M 6 x 1,00	80	10	4,5	3,4	3R38738	**14,42**
M 8 x 1,25	90	14	6,0	4,9	3R38742	**17,46**
M 10 x 1,50	100	16	7,0	5,5	3R38746	**20,39**
M 12 x 1,75	110	18	9,0	7,0	3R38750	**24,56**
M 14 x 2,00	110	20	11,0	9,0	3R38754	**31,88**
M 16 x 2,00	110	22	12,0	9,0	3R38758	**38,70**
M 18 x 2,50	125	25	14,0	11,0	3R38762	**52,34**
M 20 x 2,50	140	25	16,0	12,0	3R38766	**65,58**
M 22 x 2,50	140	27	18,0	14,5	3R38770	**75,28**
M 24 x 3,00	160	30	18,0	14,5	3R38774	**81,51**
M 27 x 3,00	160	30	20,0	16,0	3R38776	**131,20**
M 30 x 3,50	180	35	22,0	18,0	3R38778	**137,47**
M 33 x 3,50	180	35	25,0	20,0	3R38780	**189,30**
M 36 x 4,00	200	40	28,0	22,0	3R38782	**312,31**
M 39 x 4,00	200	40	32,0	24,0	3R38784	**474,67**
M 42 x 4,50	200	45	32,0	24,0	3R38786	**548,84**
M 45 x 4,50	220	45	36,0	29,0	3R38788	**623,00**
M 48 x 5,00	250	50	36,0	29,0	3R38790	**682,33**
M 52 x 5,00	250	50	40,0	32,0	3R38792	**830,66**

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 900-1100 N/mm²

HSS-CO 5% | TIN | DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R31726	**21,27**
M 4 x 0,70	63	7	4,5	3,4	3R31730	**21,27**
M 5 x 0,80	70	8	6,0	4,9	3R31734	**22,47**
M 6 x 1,00	80	10	6,0	4,9	3R31738	**25,17**
M 8 x 1,25	90	14	8,0	6,2	3R31742	**30,20**
M 10 x 1,50	100	16	10,0	8,0	3R31746	**37,48**
M 12 x 1,75*	110	18	7,0	7,0	3R31750	**45,51**

* Machos en DIN376 / *Taps on DIN376* / *Tarauds en DIN376*

ACERO 900-1100 N/mm²

HSS-CO 5% | VAP | DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R31770	**16,19**
M 4 x 0,70	63	7	4,5	3,4	3R31771	**16,19**
M 5 x 0,80	70	8	4,5	4,9	3R31772	**17,66**
M 6 x 1,00	80	10	6,0	4,9	3R31773	**17,66**
M 8 x 1,25	90	14	6,0	6,2	3R31774	**21,08**
M 10 x 1,50	100	16	10,0	8,0	3R31775	**25,99**

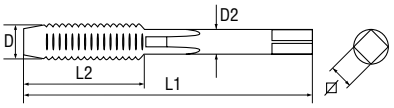
ACERO 900-1100 N/mm²

HSS-CO 5% | VAP | DIN 376 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	18	9,0	7,0	3R31776	**31,39**
M 14 x 2,00	110	20	11,0	9,0	3R31777	**41,66**
M 16 x 2,00	110	22	12,0	9,0	3R31778	**46,73**
M 18 x 2,50	125	25	14,0	11,0	3R31779	**66,67**
M 20 x 2,50	140	25	16,0	12,0	3R31780	**90,16**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



AL · ACERO 400-800 N/mm² · HSS-CO 5% · DIN 371 · FORM B-AZ · TOL 6H



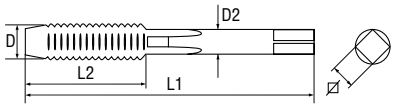
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R37926	**19,73**
M 4 x 0,70	63	13	4,5	3,4	3R37930	**19,73**
M 5 x 0,80	70	16	6,0	4,9	3R37934	**20,19**
M 6 x 1,00	80	19	6,0	4,9	3R37938	**20,59**
M 8 x 1,25	90	22	8,0	6,2	3R37942	**24,99**
M 10 x 1,50	100	24	10,0	8,0	3R37946	**28,61**

AL · ACERO 400-800 N/mm² · HSS-CO 5% · DIN 376 · FORM B-AZ · TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38926	**19,73**
M 4 x 0,70	63	13	2,8	2,1	3R38930	**19,73**
M 5 x 0,80	70	16	3,5	2,7	3R38934	**20,19**
M 6 x 1,00	80	19	4,5	3,4	3R38938	**20,59**
M 8 x 1,25	90	22	6,0	4,9	3R38942	**24,99**
M 10 x 1,50	100	24	7,0	5,5	3R38946	**28,61**
M 12 x 1,75	110	29	9,0	7,0	3R38950	**34,47**
M 14 x 2,00	110	30	11,0	9,0	3R38954	**43,45**
M 16 x 2,00	110	32	12,0	9,0	3R38958	**48,92**
M 18 x 2,50	125	34	14,0	11,0	3R38962	**65,46**
M 20 x 2,50	140	34	16,0	12,0	3R38966	**87,18**
M 22 x 2,50	140	34	18,0	14,5	3R38970	**100,51**
M 24 x 3,00	160	38	18,0	14,5	3R38974	**106,28**

MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
METRIC ISO-THREAD DIN 13 EXTRALONG
MÉTRIQUE DIN-13 EXTRALONG



100 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0.50	100	11	3,5	2,7	3R32010	**20,90**
M 4 x 0.70	100	13	4,5	3,4	3R32011	**20,90**
M 5 x 0.80	100	16	6,0	4,9	3R32012	**21,60**
M 6 x 1.00	100	19	6,0	4,9	3R32013	**21,60**
M 8 x 1.25	100	22	8,0	6,2	3R32014	**24,67**
M 10 x 1.50	100	24	10,0	8,0	3R32015	**34,95**
M 12 x 1.75	100	29	12,0	9,0	3R32016	**29,13**

120 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0,70	120	13	4,5	3,4	3R32021	**21,60**
M 5 x 0,80	120	16	6,0	4,9	3R32022	**23,63**
M 6 x 1,00	120	19	6,0	4,9	3R32023	**23,63**
M 8 x 1,25	120	22	8,0	6,2	3R32024	**27,40**
M 10 x 1,50	120	24	10,0	8,0	3R32025	**31,18**
M 12 x 1,75	120	29	12,0	9,0	3R32026	**35,30**

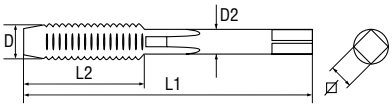
150 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0,70	150	13	4,5	3,4	3R32031	**22,62**
M 5 x 0,80	150	16	6,0	4,9	3R32032	**25,71**
M 6 x 1,00	150	19	6,0	4,9	3R32033	**31,18**
M 8 x 1,25	150	22	8,0	6,2	3R32034	**31,18**
M 10 x 1,50	150	24	10,0	8,0	3R32035	**38,04**
M 12 x 1,75	150	29	12,0	9,0	3R32036	**42,49**

MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
METRIC ISO-THREAD DIN 13 EXTRALONG
MÉTRIQUE DIN-13 EXTRALONG



100 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	100	6	3,5	2,7	3R32040	**24,67**
M 4 x 0,70	100	7	4,5	3,4	3R32041	**24,67**
M 5 x 0,80	100	8	6,0	4,9	3R32042	**26,39**
M 6 x 1,00	100	10	6,0	4,9	3R32043	**26,39**
M 8 x 1,25	100	14	8,0	6,2	3R32044	**29,13**
M 10 x 1,50	100	16	10,0	8,0	3R32045	**30,45**
M 12 x 1,75	100	18	12,0	9,0	3R32046	**32,23**

120 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0,70	120	7	4,5	3,4	3R32051	**25,71**
M 5 x 0,80	120	8	6,0	4,9	3R32052	**28,45**
M 6 x 1,00	120	10	6,0	4,9	3R32053	**28,45**
M 8 x 1,25	120	14	8,0	6,2	3R32054	**32,23**
M 10 x 1,50	120	16	10,0	8,0	3R32055	**37,01**
M 12 x 1,75	120	18	12,0	9,0	3R32056	**38,04**

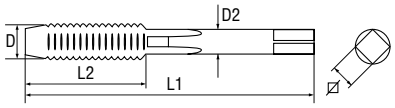
150 mm

ACERO 400-800 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0,70	150	7	4,5	3,4	3R32061	**26,39**
M 5 x 0,80	150	8	6,0	4,9	3R32062	**30,49**
M 6 x 1,00	150	10	6,0	4,9	3R32063	**30,49**
M 8 x 1,25	150	14	8,0	6,2	3R32064	**35,98**
M 10 x 1,50	150	16	10,0	8,0	3R32065	**43,53**
M 12 x 1,75	150	18	12,0	9,0	3R32066	**45,58**

MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO
METRIC ISO-THREAD DIN 13 OVERSIZE
MÉTRIQUE DIN-13 SURCOTÉS



ACERO 400-800 N/mm²

HSS-CO 5% | DIN 371 | DIN 376 | FORM B | TOL 6G



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,5 x 0,45	50	9	2,8	2,1	3R32522	**17,21**
M 3,0 x 0,50	56	11	3,5	2,7	3R32526	**17,76**
M 4,0 x 0,70	63	13	4,5	3,4	3R32530	**17,76**
M 5,0 x 0,80	70	16	6,0	4,9	3R32534	**18,75**
M 6,0 x 1,00	80	19	6,0	4,9	3R32538	**18,75**
M 8,0 x 1,25	90	22	8,0	6,2	3R32542	**22,94**
M 10,0 x 1,50	100	24	10,0	8,0	3R32546	**25,83**
M 12,0 x 1,75*	110	29	90,0	7,0	3R32550	**31,86**
M 14,0 x 2,00*	110	30	11,0	9,0	3R32554	**45,58**
M 16,0 x 2,00*	110	32	12,0	9,0	3R32558	**51,75**
M 18,0 x 2,50*	125	34	14,0	11,0	3R32562	**71,26**
M 20,0 x 2,50*	140	34	16,0	12,0	3R32566	**94,72**

ACERO 400-800 N/mm²

HSS-CO 5% | DIN 371 | DIN 376 | FORM B | TOL 7G



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R32503	**18,65**
M 4 x 0,70	63	13	4,5	3,4	3R32504	**18,65**
M 5 x 0,80	70	16	6,0	4,9	3R32505	**19,77**
M 6 x 1,00	80	19	6,0	4,9	3R32506	**19,77**
M 8 x 1,25	90	22	6,0	6,2	3R32508	**24,86**
M 10 x 1,50	100	24	10,0	8,0	3R32510	**29,66**
M 12 x 1,75*	110	29	9,0	7,0	3R32512	**36,26**

ACERO 400-800 N/mm²

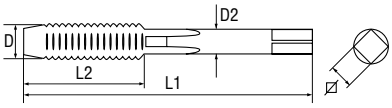
HSS-CO 5% | DIN 371 | DIN 376 | FORM B | TOL 6H +0,1 mm



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R32583	**18,65**
M 4 x 0,70	63	13	4,5	3,4	3R32584	**18,65**
M 5 x 0,80	70	16	6,0	4,9	3R32585	**19,77**
M 6 x 1,00	80	19	6,0	4,9	3R32586	**19,77**
M 8 x 1,25	90	22	8,0	6,2	3R32588	**24,86**
M 10 x 1,50	100	24	10,0	8,0	3R32590	**29,66**
M 12 x 1,75*	110	29	9,0	7,0	3R32592	**36,26**

* Machos en DIN376 / *Taps on DIN376* / *Tarauds en DIN376*
Sobredimensión: 0.02 - 0.04 mm / *Oversize 0.02 - 0.04 mm* / *Surcotage 0.02 - 0.04 mm*
Materiales tratados superficialmente (galvanizados, cromados…) / *For pre plate material for galvanising* / *Pour matériaux présentant une couche de galvanisation*

MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO
METRIC ISO-THREAD DIN 13 OVERSIZE
MÉTRIQUE DIN-13 EXTRALONG



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 6G



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,0 x 0,50	56	6	3,5	2,7	3R32726	**22,62**
M 4,0 x 0,70	63	7	4,5	3,4	3R32730	**22,62**
M 5,0 x 0,80	70	8	6,0	4,9	3R32734	**23,63**
M 6,0 x 1,00	80	10	6,0	4,9	3R32738	**23,63**
M 8,0 x 1,25	90	14	8,0	6,2	3R32742	**27,46**
M 10,0 x 1,50	100	16	10,0	8,0	3R32746	**31,66**
M 12,0 x 1,75*	110	18	9,0	7,0	3R32750	**32,62**
M 14,0 x 2,00*	110	20	11,0	9,0	3R32754	**47,18**
M 16,0 x 2,00*	110	22	12,0	9,0	3R32758	**49,74**
M 18,0 x 2,50*	125	25	14,0	11,0	3R32762	**73,64**
M 20,0 x 2,50*	140	25	16,0	12,0	3R32766	**98,20**

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 7G



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R32703	**23,98**
M 4 x 0,70	63	7	4,5	3,4	3R32704	**23,98**
M 5 x 0,80	70	8	6,0	4,9	3R32705	**25,77**
M 6 x 1,00	80	10	6,0	4,9	3R32706	**25,77**
M 8 x 1,25	90	14	8,0	6,2	3R32708	**31,07**
M 10 x 1,50	100	16	10,0	8,0	3R32710	**36,72**
M 12 x 1,75*	110	18	9,0	7,0	3R32712	**39,55**

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 6H +0,1 mm



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R32783	**23,98**
M 4 x 0,70	63	7	4,5	3,4	3R32784	**23,98**
M 5 x 0,80	70	8	6,0	4,9	3R32785	**25,77**
M 6 x 1,00	80	10	6,0	4,9	3R32786	**25,77**
M 8 x 1,25	90	14	8,0	6,2	3R32788	**31,07**
M 10 x 1,50	100	16	10,0	8,0	3R32790	**36,72**
M 12 x 1,75*	110	18	9,0	7,0	3R32792	**39,55**

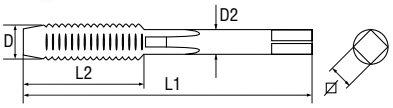
* Machos en DIN376 / *Taps on DIN376* / *Tarauds en DIN376*
Sobredimensión: 0.02 - 0.04 mm / *Oversize 0.02 - 0.04 mm* / *Surcotage 0.02 - 0.04 mm*
Materiales tratados superficialmente (galvanizados, cromados…) / *For pre plate material for galvanising* / *Pour matériaux présentant une couche de galvanisation*

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C | TOL 6H

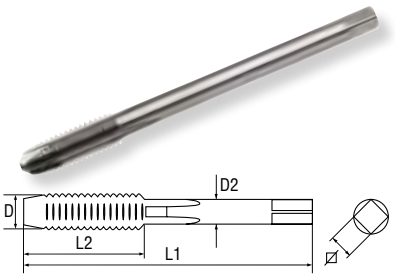


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0,35	63	10	2,8	2,1	3R39402	**21,65**
M 5 x 0,50	70	12	3,5	2,7	3R39404	**20,36**
M 6 x 0,75	80	14	4,5	3,4	3R39407	**19,04**
M 8 x 0,75	80	19	6,0	4,9	3R39410	**19,12**
M 8 x 1,00	90	22	6,0	4,9	3R39411	**18,48**
M 10 x 1,00	90	20	7,0	5,5	3R39415	**21,04**
M 10 x 1,25	100	24	7,0	5,5	3R39416	**21,04**
M 12 x 1,00	100	22	9,0	7,0	3R39420	**28,05**
M 12 x 1,25	100	22	9,0	7,0	3R39421	**28,05**
M 12 x 1,50	100	22	9,0	7,0	3R39422	**28,05**
M 14 x 1,00	100	22	11,0	9,0	3R39426	**36,34**
M 14 x 1,25	100	22	11,0	9,0	3R39427	**34,42**
M 14 x 1,50	100	22	11,0	9,0	3R39428	**34,42**
M 16 x 1,00	100	22	12,0	9,0	3R39431	**46,53**
M 16 x 1,50	100	22	12,0	9,0	3R39433	**39,52**
M 18 x 1,00	110	25	14,0	11,0	3R39434	**58,64**
M 18 x 1,50	110	25	14,0	11,0	3R39436	**45,90**
M 18 x 2,00	125	34	14,0	11,0	3R39437	**54,50**
M 20 x 1,00	125	25	16,0	12,0	3R39438	**67,65**
M 20 x 1,25	125	25	16,0	12,0	3R39439	**67,65**
M 20 x 1,50	125	25	16,0	12,0	3R39440	**51,87**
M 20 x 2,00	140	34	16,0	12,0	3R39441	**60,87**
M 22 x 1,00	125	25	18,0	14,5	3R39443	**78,80**
M 22 x 1,50	125	25	18,0	14,5	3R39445	**65,67**
M 22 x 2,00	140	34	18,0	14,5	3R39446	**78,80**
M 24 x 1,00	140	28	18,0	14,5	3R39448	**86,56**
M 24 x 1,50	140	28	18,0	14,5	3R39450	**78,80**
M 24 x 2,00	140	28	18,0	14,5	3R39451	**89,31**
M 25 x 1,00	140	28	18,0	14,5	3R39452	**97,40**
M 26 x 1,50	140	28	18,0	14,5	3R39454	**94,56**
M 27 x 1,50	140	28	20,0	16,0	3R39456	**103,73**
M 27 x 2,00	140	28	20,0	16,0	3R39457	**106,85**
M 28 x 1,50	140	28	20,0	16,0	3R39459	**103,73**
M 30 x 1,50	150	28	22,0	16,0	3R39463	**110,32**
M 30 x 2,00	150	28	22,0	18,0	3R39464	**131,19**
M 32 x 1,50	150	28	22,0	18,0	3R39466	**137,89**
M 32 x 2,00	150	28	22,0	18,0	3R39467	**162,31**
M 33 x 2,00	160	28	25,0	20,0	3R39468	**175,83**
M 35 x 1,50	170	30	28,0	22,0	3R39472	**175,83**
M 36 x 1,50	170	30	28,0	22,0	3R39473	**177,10**
M 36 x 2,00	170	30	28,0	22,0	3R39474	**216,42**
M 38 x 1,50	170	30	28,0	22,0	3R39476	**188,02**
M 40 x 1,50	170	30	32,0	24,0	3R39480	**236,39**
M 42 x 1,50	170	30	32,0	24,0	3R39483	**250,83**
M 45 x 1,50	180	32	36,0	29,0	3R39486	**301,39**
M 48 x 1,50	190	32	36,0	29,0	3R39489	**327,14**
M 50 x 1,50	190	32	36,0	29,0	3R39494	**380,02**
M 52 x 1,50	190	32	40,0	32,0	3R39497	**414,83**

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC FINE ISO-THREAD DIN 13

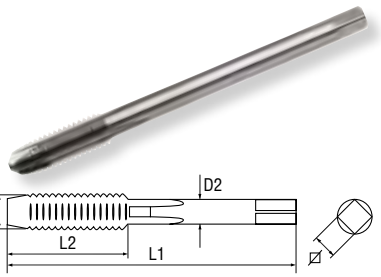
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,35	56	9	2,2	-	3R39501	**25,04**
M 4 x 0,35	63	10	2,8	2,1	3R39502	**25,04**
M 4 x 0,50	63	10	2,8	2,1	3R39503	**22,21**
M 5 x 0,50	70	12	3,5	2,7	3R39504	**22,21**
M 5 x 0,75	70	12	3,5	2,7	3R39505	**20,85**
M 6 x 0,50	80	14	4,5	3,4	3R39506	**25,04**
M 6 x 0,75	80	14	4,5	3,4	3R39507	**19,81**
M 7 x 0,75	80	14	5,5	4,3	3R39508	**24,07**
M 8 x 0,50	80	19	6,0	4,9	3R39509	**25,04**
M 8 x 0,75	80	19	6,0	4,9	3R39510	**22,87**
M 8 x 1,00	90	22	6,0	4,9	3R39511	**19,81**
M 9 x 0,75	80	19	7,0	5,5	3R39512	**25,04**
M 9 x 1,00	90	22	7,0	5,5	3R39513	**26,42**
M 10 x 0,75	90	20	7,0	5,5	3R39514	**31,48**
M 10 x 1,00	90	20	7,0	5,5	3R39515	**23,40**
M 10 x 1,25	100	24	7,0	5,5	3R39516	**25,41**
M 11 x 1,00	90	20	8,0	6,2	3R39517	**34,11**
M 11 x 1,25	90	22	8,0	6,2	3R39518	**36,11**
M 12 x 0,75	100	22	9,0	7,0	3R39519	**38,64**
M 12 x 1,00	100	22	9,0	7,0	3R39520	**31,33**
M 12 x 1,25	100	22	9,0	7,0	3R39521	**31,33**
M 12 x 1,50	100	22	9,0	7,0	3R39522	**32,10**
M 13 x 1,00	100	22	11,0	9,0	3R39523	**52,16**
M 13 x 1,50	100	22	11,0	9,0	3R39524	**52,16**
M 14 x 0,75	100	22	11,0	9,0	3R39525	**55,80**
M 14 x 1,00	100	22	11,0	9,0	3R39526	**42,81**
M 14 x 1,25	100	22	11,0	9,0	3R39527	**40,76**
M 14 x 1,50	100	22	11,0	9,0	3R39528	**40,76**
M 15 x 1,00	100	22	12,0	9,0	3R39529	**56,17**
M 15 x 1,50	100	22	12,0	9,0	3R39530	**54,09**
M 16 x 1,00	100	22	12,0	9,0	3R39531	**52,16**
M 16 x 1,25	100	22	12,0	9,0	3R39532	**57,87**
M 16 x 1,50	100	22	12,0	9,0	3R39533	**45,47**
M 18 x 1,00	110	25	14,0	11,0	3R39534	**59,66**
M 18 x 1,25	110	25	14,0	11,0	3R39535	**68,70**
M 18 x 1,50	110	25	14,0	11,0	3R39536	**55,10**
M 18 x 2,00	125	34	14,0	11,0	3R39537	**60,86**
M 20 x 1,00	125	25	16,0	12,0	3R39538	**80,26**
M 20 x 1,25	125	25	16,0	12,0	3R39539	**85,88**
M 20 x 1,50	125	25	16,0	12,0	3R39540	**60,79**
M 20 x 2,00	140	34	16,0	12,0	3R39541	**70,24**
M 21 x 1,50	125	25	16,0	12,0	3R39542	**85,88**
M 22 x 1,00	125	25	18,0	14,5	3R39543	**86,95**
M 22 x 1,25	125	25	18,0	14,5	3R39544	**100,17**
M 22 x 1,50	125	25	18,0	14,5	3R39545	**74,29**
M 22 x 2,00	140	34	18,0	14,5	3R39546	**86,95**
M 23 x 1,50	125	25	18,0	14,5	3R39547	**114,50**
M 24 x 1,00	140	28	18,0	14,5	3R39548	**106,34**
M 24 x 1,25	140	28	18,0	14,5	3R39549	**114,50**
M 24 x 1,50	140	28	18,0	14,5	3R39550	**86,95**
M 24 x 2,00	140	28	18,0	14,5	3R39551	**98,98**
M 25 x 1,00	140	28	18,0	14,5	3R39552	**114,50**

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



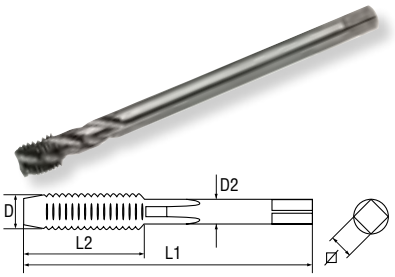
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⍁ (mm)	Cod.	€/Unid.
M 25 x 1,5	140	28	18,0	14,5	3R39553	**114,50**
M 26 x 1,0	140	28	18,0	14,5	3R3955X	**114,50**
M 26 x 1,5	140	28	18,0	14,5	3R39554	**100,33**
M 26 x 2,0	140	28	18,0	14,5	3R39555	**114,50**
M 27 x 1,0	140	28	20,0	16,0	3R39500	**143,11**
M 27 x 1,5	140	28	20,0	16,0	3R39556	**115,03**
M 27 x 2,0	140	28	20,0	16,0	3R39557	**128,81**
M 28 x 1,0	140	28	20,0	16,0	3R39558	**143,11**
M 28 x 1,5	140	28	20,0	16,0	3R39559	**117,13**
M 28 x 2,0	140	28	20,0	16,0	3R39560	**128,97**
M 29 x 1,5	150	28	22,0	18,0	3R39561	**164,59**
M 30 x 1,0	150	28	22,0	18,0	3R39562	**154,49**
M 30 x 1,5	150	28	22,0	18,0	3R39563	**126,66**
M 30 x 2,0	150	28	22,0	18,0	3R39564	**147,13**
M 30 x 2,5	180	45	22,0	18,0	3R3956X	**164,59**
M 30 x 3,0	180	45	22,0	18,0	3R39565	**164,59**
M 32 x 1,5	150	28	22,0	18,0	3R39566	**156,62**
M 32 x 2,0	150	28	22,0	18,0	3R39567	**214,68**
M 32 x 3,0	180	50	22,0	18,0	3R39592	**214,68**
M 33 x 1,5	160	30	25,0	20,0	3R39593	**167,19**
M 33 x 2,0	160	30	25,0	20,0	3R39568	**214,68**
M 33 x 3,0	180	50	25,0	20,0	3R39569	**214,68**
M 34 x 1,5	170	30	28,0	22,0	3R39570	**187,27**
M 34 x 2,0	170	30	28,0	22,0	3R39571	**200,37**
M 35 x 1,5	170	30	28,0	22,0	3R39572	**200,63**
M 36 x 1,5	170	30	28,0	22,0	3R39573	**200,63**
M 36 x 2,0	170	30	28,0	22,0	3R39574	**254,13**
M 36 x 3,0	200	56	28,0	22,0	3R39575	**287,57**
M 38 x 1,5	170	30	28,0	22,0	3R39576	**207,33**
M 39 x 1,5	170	30	32,0	24,0	3R39577	**293,39**
M 39 x 2,0	170	30	32,0	24,0	3R39578	**293,39**
M 39 x 3,0	200	60	32,0	24,0	3R39579	**293,34**
M 40 x 1,5	170	30	32,0	24,0	3R39580	**267,51**
M 40 x 2,0	170	30	32,0	24,0	3R39581	**343,48**
M 40 x 3,0	200	60	32,0	24,0	3R39582	**334,40**
M 42 x 1,5	170	30	32,0	24,0	3R39583	**280,89**
M 42 x 2,0	170	30	32,0	24,0	3R39584	**400,75**
M 42 x 3,0	200	60	32,0	24,0	3R39585	**387,89**
M 45 x 1,5	180	32	36,0	29,0	3R39586	**334,40**
M 45 x 2,0	180	32	36,0	29,0	3R39587	**400,75**
M 45 x 3,0	200	50	36,0	29,0	3R39588	**429,35**
M 48 x 1,5	190	32	36,0	36,0	3R39589	**479,45**
M 48 x 2,0	190	32	36,0	29,0	3R39590	**479,45**
M 48 x 3,0	225	50	36,0	36,0	3R39591	**479,45**
M 50 x 1,5	190	32	36,0	29,0	3R39594	**555,30**
M 50 x 2,0	190	32	36,0	36,0	3R39595	**555,30**
M 50 x 3,0	225	50	36,0	29,0	3R39596	**555,30**
M 52 x 1,5	190	32	40,0	32,0	3R39597	**612,54**
M 52 x 2,0	190	32	40,0	32,0	3R39598	**612,54**
M 52 x 3,0	225	50	40,0	32,0	3R39599	**612,54**
M 63 x 1,5	275	50	50,0	39,0	3R3959X	**901,63**

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC FINE ISO-THREAD DIN 13

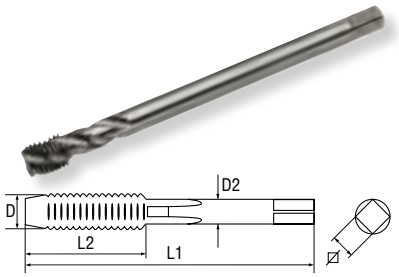
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,35	56	5	2,2	-	3R39701	**30,22**
M 4 x 0,35	63	5	2,8	2,1	3R39702	**30,22**
M 4 x 0,50	63	5	2,8	2,1	3R39703	**25,83**
M 5 x 0,50	70	5	3,5	2,7	3R39704	**26,28**
M 5 x 0,75	70	8	3,5	2,7	3R39705	**26,28**
M 6 x 0,50	80	5	4,5	3,4	3R39706	**30,22**
M 6 x 0,75	80	8	4,5	3,4	3R39707	**23,55**
M 7 x 0,75	80	8	5,5	4,3	3R39708	**30,22**
M 8 x 0,50	80	8	6,0	4,9	3R39709	**30,22**
M 8 x 0,75	80	8	6,0	4,9	3R39710	**30,22**
M 8 x 1,00	90	10	6,0	4,9	3R39711	**23,40**
M 9 x 0,75	80	10	7,0	5,5	3R39712	**30,92**
M 9 x 1,00	90	10	7,0	5,5	3R39713	**30,10**
M 10 x 0,75	90	10	7,0	5,5	3R39714	**31,03**
M 10 x 1,00	90	10	7,0	5,5	3R39715	**26,81**
M 10 x 1,25	100	16	7,0	5,5	3R39716	**29,70**
M 11 x 1,00	90	11	8,0	6,2	3R39717	**52,35**
M 11 x 1,25	90	14	8,0	6,2	3R39718	**52,35**
M 12 x 0,75	100	10	9,0	7,0	3R39719	**52,35**
M 12 x 1,00	100	11	9,0	7,0	3R39720	**37,45**
M 12 x 1,25	100	15	9,0	7,0	3R39721	**36,11**
M 12 x 1,50	100	15	9,0	7,0	3R39722	**34,47**
M 13 x 1,00	100	11	11,0	9,0	3R39723	**55,06**
M 13 x 1,50	100	15	11,0	9,0	3R39724	**55,06**
M 14 x 0,75	100	10	11,0	9,0	3R39725	**55,06**
M 14 x 1,00	100	11	11,0	9,0	3R39726	**52,32**
M 14 x 1,25	100	15	11,0	9,0	3R39727	**47,45**
M 14 x 1,50	100	15	11,0	9,0	3R39728	**42,03**
M 15 x 1,00	100	12	12,0	9,0	3R39729	**76,04**
M 15 x 1,50	100	15	12,0	9,0	3R39730	**76,04**
M 16 x 1,00	100	12	12,0	9,0	3R39731	**76,04**
M 16 x 1,25	100	15	12,0	9,0	3R39732	**76,04**
M 16 x 1,50	100	15	12,0	9,0	3R39733	**56,18**
M 18 x 1,00	110	13	14,0	11,0	3R39734	**81,03**
M 18 x 1,25	110	15	14,0	11,0	3R39735	**81,03**
M 18 x 1,50	110	17	14,0	11,0	3R39736	**63,85**
M 18 x 2,00	125	20	14,0	11,0	3R39737	**81,03**
M 20 x 1,00	125	14	16,0	12,0	3R39738	**98,24**
M 20 x 1,25	125	17	16,0	12,0	3R39739	**98,24**
M 20 x 1,50	125	17	16,0	12,0	3R39740	**68,11**
M 20 x 2,00	140	20	16,0	12,0	3R39741	**98,24**
M 21 x 1,50	125	17	16,0	12,0	3R39742	**98,24**
M 22 x 1,00	125	14	18,0	14,5	3R39743	**113,29**
M 22 x 1,25	125	17	18,0	14,5	3R39744	**113,29**
M 22 x 1,50	125	17	18,0	14,5	3R39745	**82,86**
M 22 x 2,00	140	20	18,0	14,5	3R39746	**120,36**
M 23 x 1,50	125	17	18,0	14,5	3R39747	**133,47**
M 24 x 1,00	140	15	18,0	14,5	3R39748	**133,47**
M 24 x 1,25	140	17	18,0	14,5	3R39749	**133,47**
M 24 x 1,50	140	20	18,0	14,5	3R39750	**99,41**
M 24 x 2,00	140	20	18,0	14,5	3R39751	**127,07**
M 25 x 1,00	140	15	18,0	14,5	3R39752	**133,47**

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

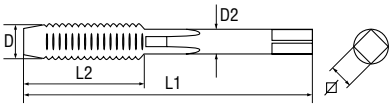


ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 25 x 1,5	140	20	18,0	14,5	3R39753	**133,47**
M 26 x 1,0	140	15	18,0	14,5	3R3975X	**133,47**
M 26 x 1,5	140	20	18,0	14,5	3R39754	**140,49**
M 26 x 2,0	140	20	18,0	14,5	3R39755	**140,49**
M 27 x 1,0	140	15	20,0	16,0	3R39700	**156,87**
M 27 x 1,5	140	20	20,0	16,0	3R39756	**168,07**
M 27 x 2,0	140	20	20,0	16,0	3R39757	**168,07**
M 28 x 1,0	140	15	20,0	16,0	3R39758	**168,07**
M 28 x 1,5	140	20	20,0	16,0	3R39759	**168,07**
M 28 x 2,0	140	20	20,0	16,0	3R39760	**168,07**
M 29 x 1,5	150	22	22,0	18,0	3R39761	**182,19**
M 30 x 1,0	150	17	22,0	18,0	3R39762	**182,19**
M 30 x 1,5	150	22	22,0	18,0	3R39763	**151,36**
M 30 x 2,0	150	22	22,0	18,0	3R39764	**189,19**
M 30 x 2,5	180	27	22,0	18,0	3R3976X	**189,19**
M 30 x 3,0	180	30	22,0	18,0	3R39765	**189,19**
M 32 x 1,5	150	22	22,0	18,0	3R39766	**224,02**
M 32 x 2,0	150	22	22,0	18,0	3R39767	**224,02**
M 32 x 3,0	180	30	22,0	18,0	3R39792	**224,02**
M 33 x 1,5	160	24	25,0	20,0	3R39793	**224,02**
M 33 x 2,0	160	24	25,0	20,0	3R39768	**224,02**
M 33 x 3,0	180	30	25,0	20,0	3R39769	**224,02**
M 34 x 1,5	170	24	28,0	22,0	3R39770	**226,82**
M 34 x 2,0	170	24	28,0	22,0	3R39771	**226,82**
M 35 x 1,5	170	24	28,0	22,0	3R39772	**226,82**
M 36 x 1,5	170	24	28,0	22,0	3R39773	**286,52**
M 36 x 2,0	170	24	28,0	22,0	3R39774	**286,52**
M 36 x 3,0	200	30	28,0	22,0	3R39775	**286,52**
M 38 x 1,5	170	24	28,0	22,0	3R39776	**302,28**
M 39 x 1,5	170	25	32,0	24,0	3R39777	**302,28**
M 39 x 2,0	170	25	32,0	24,0	3R39778	**302,28**
M 39 x 3,0	200	30	32,0	24,0	3R39779	**302,28**
M 40 x 1,5	170	25	32,0	24,0	3R39780	**334,39**
M 40 x 2,0	170	25	32,0	24,0	3R39781	**334,39**
M 40 x 3,0	200	30	32,0	24,0	3R39782	**334,39**
M 42 x 1,5	170	25	32,0	24,0	3R39783	**375,95**
M 42 x 2,0	170	25	32,0	24,0	3R39784	**375,95**
M 42 x 3,0	200	30	32,0	24,0	3R39785	**375,95**
M 45 x 1,5	180	27	36,0	29,0	3R39786	**440,15**
M 45 x 2,0	180	27	36,0	29,0	3R39787	**440,15**
M 45 x 3,0	200	30	36,0	29,0	3R39788	**440,15**
M 48 x 1,5	190	27	36,0	29,0	3R39789	**524,32**
M 48 x 2,0	190	27	36,0	29,0	3R39790	**524,32**
M 48 x 3,0	225	33	36,0	29,0	3R39791	**524,32**
M 50 x 1,5	190	27	36,0	29,0	3R39794	**607,25**
M 50 x 2,0	190	27	36,0	29,0	3R39795	**607,25**
M 50 x 3,0	225	33	36,0	29,0	3R39796	**607,25**
M 52 x 1,5	190	27	40,0	32,0	3R39797	**668,77**
M 52 x 2,0	190	27	40,0	32,0	3R39798	**668,77**
M 52 x 3,0	225	33	40,0	32,0	3R39799	**668,77**
M 63 x 1,5	275	40	50,0	39,0	3R3979X	**1.018,02**

BSW

WHITWORTH BS 84
WHITWORTH BS 84
FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
BSW 1/8 x 40	56	11	3,5	2,7	3R70506	**17,38**
BSW 5/32 x 32	63	13	4,5	3,4	3R70508	**17,38**
BSW 3/16 x 24	70	15	6,0	4,9	3R70510	**17,38**
BSW 1/4 x 20	80	17	7,0	5,5	3R70514	**19,53**
BSW 5/16 x 18	90	20	8,0	6,2	3R70516	**23,20**
BSW 3/8 x 16	100	22	9,0	7,0	3R70518	**25,69**
BSW 7/16 x 14	100	22	11,0	9,0	3R70520	**32,39**
BSW 1/2 x 12	110	25	12,0	9,0	3R70522	**32,39**

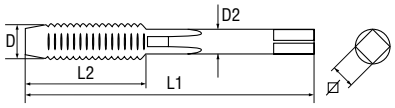
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
BSW 1/4 x 20	80	17	4,5	3,4	3R71514	**19,53**
BSW 5/16 x 18	90	20	6,0	4,9	3R71516	**23,20**
BSW 3/8 x 16	100	22	7,0	5,5	3R71518	**25,69**
BSW 7/16 x 14	100	22	8,0	6,2	3R71520	**32,39**
BSW 1/2 x 12	110	25	9,0	7,0	3R71522	**32,39**
BSW 9/16 x 12	110	26	11,0	9,0	3R71524	**45,02**
BSW 5/8 x 11	110	27	12,0	9,0	3R71526	**45,02**
BSW 3/4 x 10	125	30	14,0	11,0	3R71530	**70,02**
BSW 7/8 x 9	140	32	18,0	14,5	3R71534	**85,53**
BSW 1 x 8	160	36	20,0	16,0	3R71538	**104,56**
BSW 1.1/8 x 7	180	40	22,0	18,0	3R71542	**130,70**
BSW 1.1/4 x 7	180	40	22,0	18,0	3R71546	**170,54**
BSW 1.3/8 x 6	200	50	28,0	22,0	3R71550	**313,78**
BSW 1.1/2 x 6	200	50	32,0	24,0	3R71554	**341,09**

BSW

WHITWORTH BS 84
WHITWORTH BS 84
FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C/35°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSW 1/8 x 40	56	7	3,5	2,7	3R70706	**19,81**
BSW 5/32 x 32	63	7	4,5	3,4	3R70708	**19,81**
BSW 3/16 x 24	70	10	6,0	4,9	3R70710	**19,81**
BSW 1/4 x 20	80	13	7,0	5,5	3R70714	**22,73**
BSW 5/16 x 18	90	14	8,0	6,2	3R70716	**26,17**
BSW 3/8 x 16	100	16	9,0	7,0	3R70718	**29,47**
BSW 7/16 x 14	100	17	11,0	9,0	3R70720	**38,69**
BSW 1/2 x 12	110	20	12,0	9,0	3R70722	**37,57**

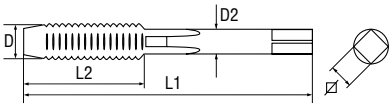
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C/35°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSW 1/4 x 20	80	13	4,5	3,4	3R71714	**22,73**
BSW 5/16 x 18	90	14	6,0	4,9	3R71716	**26,17**
BSW 3/8 x 16	100	16	7,0	5,5	3R71718	**29,47**
BSW 7/16 x 14	100	17	8,0	6,2	3R71720	**38,69**
BSW 1/2 x 12	110	20	9,0	7,0	3R71722	**37,57**
BSW 9/16 x 12	110	20	11,0	9,0	3R71724	**53,63**
BSW 5/8 x 11	110	22	12,0	9,0	3R71726	**53,75**
BSW 3/4 x 10	125	25	14,0	11,0	3R71730	**88,26**
BSW 7/8 x 9	140	27	18,0	14,5	3R71734	**105,22**
BSW 1 x 8	160	30	20,0	16,0	3R71738	**119,64**
BSW 1.1/4 x 7	180	35	22,0	18,0	3R71746	**179,10**
BSW 1.3/8 x 6	200	40	28,0	22,0	3R71750	**413,30**
BSW 1.1/2 x 6	200	40	32,0	24,0	3R71754	**413,30**

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC Nr.	4 x 40	50	10	3,5	2,7	3R74504	**23,77**
UNC Nr.	5 x 40	56	11	3,5	2,7	3R74505	**23,77**
UNC Nr.	6 x 32	56	12	4,0	3,0	3R74506	**21,79**
UNC Nr.	8 x 32	63	13	4,5	3,4	3R74508	**21,79**
UNC Nr.	10 x 24	70	15	6,0	4,9	3R74510	**23,77**
UNC Nr.	12 x 24	70	16	6,0	4,9	3R74512	**23,77**
UNC	1/4 x 20	80	17	7,0	5,5	3R74514	**21,79**
UNC	5/16 x 18	90	20	8,0	6,2	3R74516	**24,51**
UNC	3/8 x 16	100	22	9,0	7,2	3R74518	**28,61**

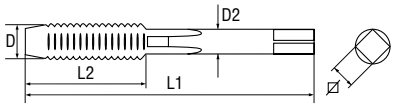
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC Nr.	4 x 40	50	10	1,8	-	3R75504	**23,77**
UNC Nr.	5 x 40	56	11	2,2	1,8	3R75505	**23,77**
UNC Nr.	6 x 32	56	12	2,5	2,1	3R75506	**21,79**
UNC Nr.	8 x 32	63	13	2,8	2,1	3R75508	**21,79**
UNC Nr.	10 x 24	70	15	3,5	2,7	3R75510	**23,77**
UNC Nr.	12 x 24	70	16	3,5	2,7	3R75512	**23,77**
UNC	1/4 x 20	80	17	4,5	3,4	3R75514	**21,79**
UNC	5/16 x 18	90	20	6,0	4,9	3R75516	**24,51**
UNC	3/8 x 16	100	22	7,0	5,5	3R75518	**28,61**
UNC	7/16 x 14	100	22	8,0	6,2	3R75520	**35,95**
UNC	1/2 x 13	110	25	9,0	7,0	3R75522	**38,97**
UNC	9/16 x 12	110	26	11,0	9,0	3R75524	**55,25**
UNC	5/8 x 11	110	27	12,0	9,0	3R75526	**55,25**
UNC	3/4 x 10	125	30	14,0	11,0	3R75530	**74,90**
UNC	7/8 x 9	140	32	18,0	14,5	3R75534	**98,19**
UNC	1 x 8	160	36	20,0	16,0	3R75538	**133,25**
UNC	1.1/4 x 7	180	40	22,0	18,0	3R75546	**188,78**
UNC	1.1/2 x 6	200	50	32,0	24,0	3R75554	**390,71**
UNC	1.3/4 x 5	220	65	36,0	29,0	3R75562	**606,10**
UNC	2 x 4.1/2	250	70	40,0	32,0	3R75570	**883,90**

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
ILETAGE UNIFIED GROSSE ANSI B 1.1



ACERO 400-800 N/mm²

HSS-CO 5% | DIN 371 | FORM C/35° | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC Nr. 4 x 40	50	6	3,5	2,7	3R74704	**28,61**
UNC Nr. 5 x 40	56	7	3,5	2,7	3R74705	**28,61**
UNC Nr. 6 x 32	56	7	3,5	3,0	3R74706	**28,61**
UNC Nr. 8 x 32	63	8	4,5	3,4	3R74708	**28,61**
UNC Nr. 10 x 24	70	10	6,0	4,9	3R74710	**28,61**
UNC Nr. 12 x 24	70	10	6,0	4,9	3R74712	**27,67**
UNC 1/4 x 20	80	13	7,0	5,5	3R74714	**25,73**
UNC 5/16 x 18	90	14	8,0	6,2	3R74716	**29,17**
UNC 3/8 x 16	100	16	9,0	7,0	3R74718	**32,27**

ACERO 400-800 N/mm²

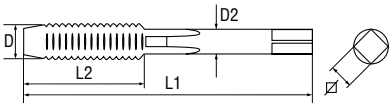
HSS-CO 5% | DIN 376 | FORM C/35° | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC 4 x 40	50	6	1,8	-	3R75704	**28,61**
UNC Nr. 5 x 40	56	7	2,2	1,8	3R75705	**28,61**
UNC Nr. 6 x 32	56	7	2,5	2,1	3R75706	**28,61**
UNC Nr. 8 x 32	63	8	2,8	2,1	3R75708	**28,61**
UNC Nr. 10 x 24	70	10	3,5	2,7	3R75710	**28,61**
UNC Nr. 12 x 24	70	10	3,5	2,7	3R75712	**27,67**
UNC 1/4 x 20	80	13	4,5	3,4	3R75714	**25,73**
UNC 5/16 x 18	90	14	6,0	4,9	3R75716	**29,17**
UNC 3/8 x 16	100	16	7,0	5,5	3R75718	**32,27**
UNC 7/16 x 14	100	17	8,0	6,2	3R75720	**45,61**
UNC 1/2 x13	110	20	9,0	7,0	3R75722	**48,53**
UNC 9/16 x 12	110	20	11,0	9,0	3R75724	**67,33**
UNC 5/8 x 11	110	22	12,0	9,0	3R75726	**65,37**
UNC 3/4 x 10	125	25	14,0	11,0	3R75730	**87,52**
UNC 7/8 x 9	140	27	18,0	14,5	3R75734	**135,47**
UNC 1 x 8	160	30	20,0	16,0	3R75738	**171,09**
UNC 1.1/4 x 7	180	35	22,0	18,0	3R75746	**243,78**
UNC 1.1/2 x 6	200	40	32,0	24,0	3R75754	**448,88**
UNC 1.3/4 x 5	220	45	36,0	29,0	3R75762	**656,61**
UNC 2 x 4.1/2	250	50	40,0	32,0	3R75770	**959,17**

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



ACERO 400-800 N/mm²

HSS-CO 5% | DIN 371 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
UNF Nr.	4 x 48	50	10	3,5	2,7	3R76504	**23,77**
UNF Nr.	5 x 44	56	11	3,5	2,7	3R76505	**23,77**
UNF Nr.	6 x 40	56	12	4,0	3,0	3R76506	**23,77**
UNF Nr.	8 x 36	63	13	4,5	3,4	3R76508	**23,77**
UNF Nr.	10 x 32	70	15	6,0	4,9	3R76510	**23,77**
UNF Nr.	12 x 28	70	16	6,0	4,9	3R76512	**23,77**
UNF	1/4 x 28	80	17	7,0	5,5	3R76514	**21,05**
UNF	5/16 x 24	90	17	8,0	6,2	3R76516	**24,51**
UNF	3/8 x 24	100	18	9,0	7,0	3R76518	**27,52**

ACERO 400-800 N/mm²

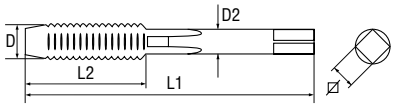
HSS-CO 5% | DIN 376 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
UNF	7/16 x 20	100	22	8,0	6,2	3R77520	**35,75**
UNF	1/2 x 20	100	22	9,0	7,0	3R77522	**37,20**
UNF	9/16 x 18	100	22	11,0	9,0	3R77524	**46,30**
UNF	5/8 x 18	100	22	12,0	9,0	3R77526	**51,47**
UNF	3/4 x 16	110	25	14,0	11,0	3R77530	**74,90**
UNF	7/8 x 14	140	26	18,0	14,5	3R77534	**88,52**
UNF	1 x 14	150	28	20,0	16,0	3R77540	**111,66**
UNF	1 x 12	150	28	20,0	16,0	3R77538	**125,83**
UNF	1.1/4 x 12	150	30	22,0	18,0	3R77546	**171,60**
UNF	1.1/2 x 12	170	33	32,0	24,0	3R77554	**357,51**

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



ACERO 300-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C/35° | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF Nr.	4 x 48	50	6	3,5	2,7	3R76704	**29,87**
UNF Nr.	5 x 44	56	7	3,5	2,7	3R76705	**29,87**
UNF Nr.	6 x 40	56	7	4,0	3,0	3R76706	**29,87**
UNF Nr.	8 x 36	63	8	4,5	3,4	3R76708	**29,87**
UNF Nr.	10 x 32	70	10	6,0	4,9	3R76710	**29,87**
UNF Nr.	12 x 28	70	10	6,0	4,9	3R76712	**29,87**
UNF	1/4 x 28	80	10	7,0	5,5	3R76714	**23,62**
UNF	5/16 x 24	90	10	8,0	6,2	3R76716	**27,52**
UNF	3/8 x 24	100	10	9,0	7,0	3R76718	**31,65**

ACERO 300-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C/35° | TOL 2B

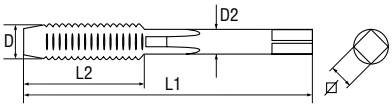


D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF	7/16 x 20	100	13	8,0	6,2	3R77720	**41,47**
UNF	1/2 x 20	100	13	9,0	7,0	3R77722	**41,47**
UNF	9/16 x 18	100	15	11,0	9,0	3R77724	**53,10**
UNF	5/8 x 18	100	15	12,0	9,0	3R77726	**57,77**
UNF	3/4 x 16	110	17	14,0	11,0	3R77730	**87,30**
UNF	7/8 x 14	140	17	18,0	14,5	3R77734	**117,48**
UNF	1 x 14	150	20	20,0	16,0	3R77740	**146,52**
UNF	1 x 12	150	20	20,0	16,0	3R77738	**146,52**
UNF	1.1/4 x 12	150	22	22,0	18,0	3R77746	**207,34**
UNF	1.1/2 x 12	170	25	32,0	24,0	3R77754	**407,78**

UN ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1

FILETAGE UNIFIÉ ANSI B 1.1



8-UN

ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM B | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UN 1.1/16 x 8	138	48	20,0	16,0	3R83101	**154,33**
UN 1.1/8 x 8	138	48	20,0	16,0	3R83102	**154,33**
UN 1.3/16 x 8	151	51	22,4	18,0	3R83103	**181,57**
UN 1.1/4 x 8	151	51	22,4	18,0	3R83104	**181,57**
UN 1.5/16 x 8	162	57	25,0	20,0	3R83105	**226,95**
UN 1.3/8 x 8	162	57	25,0	20,0	3R83106	**226,95**
UN 1.1/2 x 8	170	60	28,0	22,4	3R83107	**296,56**
UN 1.5/8 x 8	170	60	28,0	22,4	3R83108	**348,00**
UN 1.3/4 x 8	187	67	31,5	25,0	3R83109	**399,45**
UN 1.7/8 x 8	187	67	31,5	25,0	3R83110	**620,35**
UN 2 x 8	200	70	35,5	28,0	3R83111	**620,35**
UN 2.1/8 x 8	200	70	35,5	28,0	3R83112	**1.228,60**
UN 2.1/4 x 8	221	76	40,0	31,5	3R83113	**1.228,60**
UN 2.1/2 x 8	224	79	40,0	31,5	3R83115	**1.785,40**
UN 2.3/4 x 8	234	79	45,0	35,5	3R83116	**1.966,96**
UN 3 x 8	258	83	50,0	40,0	3R83117	**2.178,80**
UN 3.1/4 x 8	261	86	50,0	40,0	3R83118	**2.178,80**
UN 3.1/2 x 8	261	86	50,0	40,0	3R83119	**2.572,19**
UN 3.3/4 x 8	279	89	56,0	45,0	3R83120	**2.965,58**
UN 4 x 8	279	89	56,0	45,0	3R83121	**2.965,58**

12-UN

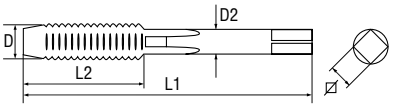
ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM B | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UN 1.5/8 x 12	170	60	28.0	22.4	3R83301	**348,00**
UN 1.3/4 x 12	187	67	31.5	25.0	3R83302	**399,45**
UN 1.7/8 x 12	187	67	31.5	25.0	3R83303	**620,35**
UN 2 x 12	200	70	35.5	28.0	3R83304	**620,35**
UN 2.1/8 x 12	200	70	35.5	28.0	3R83305	**1.228,60**
UN 2.1/4 x 12	221	76	40.0	31.5	3R83306	**1.228,60**
UN 2.1/2 x 12	224	79	40.0	31.5	3R83308	**1.785,40**
UN 2.3/4 x 12	234	79	45.0	35.5	3R83309	**1.966,96**
UN 3 x 12	258	83	50.0	40.0	3R83310	**2.178,80**
UN 3.1/4 x 12	261	86	50.0	40.0	3R83311	**2.178,80**
UN 3.1/2 x 12	261	86	50.0	40.0	3R83312	**2.572,19**
UN 3.3/4 x 12	279	89	56.0	45.0	3R83313	**2.965,58**
UN 4 x 12	279	89	56.0	45.0	3R83314	**2.965,58**

UN ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



8-UN

ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM C/35° | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UN 1.1/16 x 8	138	48	20,0	16,0	3R83151	**193,67**
UN 1.1/8 x 8	138	48	20,0	16,0	3R83152	**193,67**
UN 1.3/16 x 8	151	51	22,4	18,0	3R83153	**226,95**
UN 1.1/4 x 8	151	51	22,4	18,0	3R83154	**226,95**
UN 1.5/16 x 8	162	57	25,0	20,0	3R83155	**284,46**
UN 1.3/8 x 8	162	57	25,0	20,0	3R83156	**284,46**
UN 1.1/2 x 8	170	60	28,0	22,4	3R83157	**406,45**
UN 1.5/8 x 8	170	60	28,0	22,4	3R83158	**435,76**
UN 1.3/4 x 8	187	67	31,5	25,0	3R83159	**499,30**
UN 1.7/8 x 8	187	67	31,5	25,0	3R83160	**774,69**
UN 2 x 8	200	70	35,5	28,0	3R83161	**774,69**
UN 2.1/8 x 8	200	70	35,5	28,0	3R83162	**1.535,75**
UN 2.1/4 x 8	221	76	40,0	31,5	3R83163	**1.535,75**
UN 2.1/2 x 8	224	79	40,0	31,5	3R83165	**2.231,75**
UN 2.3/4 x 8	234	79	45,0	35,5	3R83166	**2.457,19**
UN 3 x 8	258	83	50,0	40,0	3R83167	**2.723,50**
UN 3.1/4 x 8	261	86	50,0	40,0	3R83168	**2.723,50**
UN 3.1/2 x 8	261	86	50,0	40,0	3R83169	**3.207,66**
UN 3.3/4 x 8	279	89	56,0	45,0	3R83170	**3.706,98**
UN 4 x 8	279	89	56,0	45,0	3R83171	**3.706,98**

12-UN

ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM C/35° | TOL 2B



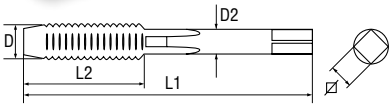
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UN 1.5/8 x 12	170	60	28,0	22,4	3R83351	**435,76**
UN 1.3/4 x 12	187	67	31,5	25,0	3R83352	**499,30**
UN 1.7/8 x 12	187	67	31,5	25,0	3R83353	**774,69**
UN 2 x 12	200	70	35,5	28,0	3R83354	**774,69**
UN 2.1/8 x 12	200	70	35,5	28,0	3R83355	**1.535,75**
UN 2.1/4 x 12	221	76	40,0	31,5	3R83356	**1.535,75**
UN 2.1/2 x 12	224	79	40,0	31,5	3R83358	**2.231,75**
UN 2.3/4 x 12	234	79	45,0	35,5	3R83359	**2.457,19**
UN 3 x 12	258	83	50,0	40,0	3R83360	**2.723,50**
UN 3.1/4 x 12	261	86	50,0	40,0	3R83361	**2.723,50**
UN 3.1/2 x 12	261	86	50,0	40,0	3R83362	**3.207,66**
UN 3.3/4 x 12	279	89	56,0	45,0	3R83363	**3.706,98**
UN 4 x 12	279	89	56,0	45,0	3R83364	**3.706,98**

UNEF

ROSCA EXTRA FINA UNIFICADA ANSI B 1.1
UNIFIED EXTRA FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1



ACERO 400-800 N/mm² | HSS-CO 5% | ISO 529 | FORM B | TOL 2B

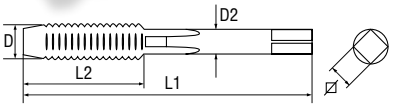


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	62	17	5,6	4,5	3R83320	**21,79**
UNEF 1/4 x 32	66	19	6,3	5,0	3R83321	**19,67**
UNEF 5/16 x 32	72	22	8,0	6,3	3R83322	**24,82**
UNEF 3/8 x 32	80	24	10,0	8,0	3R83323	**27,84**
UNEF 7/16 x 28	85	25	8,0	6,3	3R83324	**33,23**
UNEF 1/2 x 28	89	29	9,0	7,1	3R83325	**32,98**
UNEF 9/16 x 24	95	30	11,2	9,0	3R83326	**49,63**
UNEF 5/8 x 24	102	32	12,5	10,0	3R83327	**49,63**
UNEF 11/16 x 24	112	37	14,0	11,2	3R83328	**93,81**
UNEF 3/4 x 20	112	37	14,0	11,2	3R83329	**93,81**
UNEF 13/16 x 20	118	38	16,0	12,5	3R83330	**114,99**
UNEF 7/8 x 20	118	38	16,0	12,5	3R83331	**114,99**
UNEF 15/16 x 20	130	45	18,0	14,0	3R83332	**131,64**
UNEF 1" x 20	130	45	18,0	14,0	3R83333	**131,64**
UNEF 1.1/16 x 18	138	48	20,0	16,0	3R83334	**154,33**
UNEF 1.1/8 x 18	138	48	20,0	16,0	3R83335	**154,33**
UNEF 1.3/16 x 18	151	51	22,4	18,0	3R83336	**181,57**
UNEF 1.1/4 x 18	151	51	22,4	18,0	3R83337	**181,57**
UNEF 1.5/16 x 18	162	57	25,0	20,0	3R83338	**226,95**
UNEF 1.3/8 x 18	162	57	25,0	20,0	3R83339	**226,95**
UNEF 1.7/16 x 18	170	60	28,0	22,4	3R83340	**296,56**
UNEF 1.1/2 x 18	170	60	28,0	22,4	3R83341	**296,56**
UNEF 1.9/16 x 18	170	60	28,0	22,4	3R83342	**348,00**
UNEF 1.5/8 x 18	170	60	28,0	22,4	3R83343	**348,00**
UNEF 1.11/16 x 18	187	67	31,5	25,0	3R83344	**399,45**
UNEF 1.3/4 x 18	187	67	31,5	25,0	3R83345	**399,45**
UNEF 2 x 18	200	70	35,5	28,0	3R83346	**620,35**

UNEF ROSCA EXTRA FINA UNIFICADA ANSI B 1.1

UNIFIED EXTRA FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1





ACERO 300-800 N/mm² | HSS-CO 5% | ISO 529 | FORM C/35° | TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	62	17	5,6	4,5	3R83370	**27,23**
UNEF 1/4 x 32	66	19	6,3	5,0	3R83371	**24,51**
UNEF 5/16 x 32	72	22	8,0	6,3	3R83372	**30,87**
UNEF 3/8 x 32	80	24	10,0	8,0	3R83373	**34,80**
UNEF 7/16 x 28	85	25	8,0	6,3	3R83374	**41,15**
UNEF 1/2 x 28	89	29	9,0	7,1	3R83375	**41,15**
UNEF 9/16 x 24	95	30	11,2	9,0	3R83376	**62,04**
UNEF 5/8 x 24	102	32	12,5	10,0	3R83377	**62,04**
UNEF 11/16 x 24	112	37	14,0	11,2	3R83378	**118,01**
UNEF 3/4 x 20	112	37	14,0	11,2	3R83379	**118,01**
UNEF 13/16 x 20	118	38	16,0	12,5	3R83380	**143,74**
UNEF 7/8 x 20	118	38	16,0	12,5	3R83381	**143,74**
UNEF 15/16 x 20	130	45	18,0	14,0	3R83382	**164,62**
UNEF 1 x 20	130	45	18,0	14,0	3R83383	**164,62**

UNS ROSCA UNIFICADA ANSI B 1.1

UNIFIED THREAD ANSI B 1.1

FILETAGE UNIFIÉ ANSI B 1.1



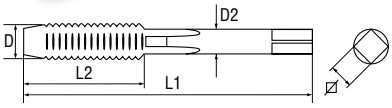
ACERO 400-800 N/mm²

HSS-CO 5%

ISO 529

FORM B

TOL 2B



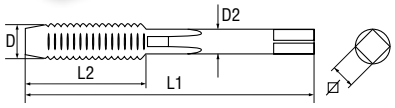
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid. €
UNS 1/4 x 24	66	19	6,3	5,0	3R83201	**19,67**
UNS 1/4 x 36	66	19	6,3	5,0	3R83202	**19,67**
UNS 1/4 x 40	66	19	6,3	5,0	3R83203	**19,67**
UNS 3/8 x 27	80	24	10,0	8,0	3R83204	**27,84**
UNS 7/16 x 24	85	25	8,0	6,3	3R83205	**32,98**
UNS 1/2 x 24	89	29	9,0	7,1	3R83206	**32,98**
UNS 5/8 x 27	102	32	12,5	10,0	3R83207	**49,63**
UNS 3/4 x 24	112	37	14,0	11,2	3R83208	**93,81**
UNS 7/8 x 18	118	38	16,0	12,5	3R83209	**114,99**
UNS 1 x 14	130	45	18,0	14,0	3R83210	**131,64**

UN ROSCA UNIFICADA ANSI B 1.1

UNIFIED THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



HSS-CO 5% | ISO 529 | FORM B | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UN 5/16 x 28	72	22	8,0	6,3	3R83221	**24,82**
UN 3/8 x 20	80	24	10,0	8,0	3R83222	**27,84**
UN 3/8 x 28	80	24	10,0	8,0	3R83223	**27,84**
UN 7/16 x 32	85	25	8,0	6,3	3R83224	**32,98**
UN 1/2 x 32	89	29	9,0	7,1	3R83225	**32,98**
UN 9/16 x 20	95	30	11,2	9,0	3R83226	**49,63**
UN 9/16 x 28	95	30	11,2	9,0	3R83227	**49,63**
UN 9/16 x 32	95	30	11,2	9,0	3R83228	**49,63**
UN 5/8 x 20	102	32	12,5	10,0	3R83229	**49,63**
UN 5/8 x 28	102	32	12,5	10,0	3R83230	**49,63**
UN 11/16 x 20	112	37	14,0	11,2	3R83231	**93,81**
UN 11/16 x 16	112	37	14,0	11,2	3R83232	**93,81**
UN 1 x 32	130	45	18,0	14,0	3R83233	**131,64**

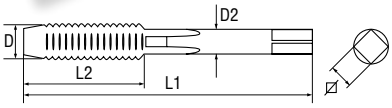
G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD ISO 228

FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 5156 | FORM C



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78412	**27,33**
G 1/4 x 19	100	22	11,0	9,0	3R78414	**35,75**
G 3/8 x 19	100	22	12,0	9,0	3R78416	**45,36**
G 1/2 x 14	125	25	12,0	12,0	3R78418	**58,55**
G 5/8 x 14	125	25	18,0	14,5	3R78420	**71,45**
G 3/4 x 14	140	28	20,0	16,0	3R78422	**89,72**
G 7/8 x 14	150	28	22,0	18,0	3R78424	**120,63**
G 1 x 11	160	30	25,0	20,0	3R78426	**135,84**
G 1.1/8 x 11	170	30	28,0	22,0	3R78430	**212,33**
G 1.1/4 x 11	170	30	32,0	24,0	3R78434	**249,60**
G 1.3/8 x 11	180	32	36,0	29,0	3R78438	**311,91**
G 1.1/2 x 11	190	32	36,0	29,0	3R78442	**397,72**
G 1.3/4 x 11	190	32	40,0	32,0	3R78450	**473,01**
G 2 x 11	220	40	45,0	35,0	3R78454	**514,78**

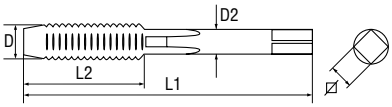
G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD ISO 228

FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 5156 | FORM B

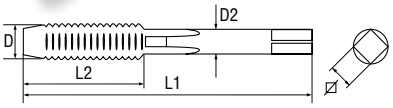


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78512	**31,33**
G 1/4 x 19	100	22	11,0	9,0	3R78514	**41,66**
G 3/8 x 19	100	22	12,0	9,0	3R78516	**50,39**
G 1/2 x 14	125	22	16,0	12,0	3R78518	**63,04**
G 5/8 x 14	125	25	18,0	14,5	3R78520	**80,36**
G 3/4 x 14	140	28	20,0	16,0	3R78522	**99,41**
G 7/8 x 14	150	28	22,0	18,0	3R78524	**134,83**
G 1 x 11	160	30	25,0	20,0	3R78526	**150,14**
G 1.1/8 x 11	170	30	28,0	22,0	3R78530	**242,61**
G 1.1/4 x 11	170	30	32,0	24,0	3R78534	**279,17**
G 1.3/8 x 11	180	32	36,0	29,0	3R78538	**357,51**
G 1.1/2 x 11	190	32	36,0	29,0	3R78542	**500,49**
G 1.3/4 x 11	190	32	40,0	32,0	3R78550	**524,32**
G 2 x 11	220	40	45,0	35,0	3R78554	**524,32**

G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228





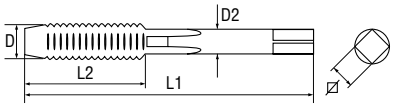
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 5156 | FORM C/35°

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78712	**32,91**
G 1/4 x 19	100	22	11,0	9,0	3R78714	**45,77**
G 3/8 x 19	100	22	12,0	9,0	3R78716	**57,19**
G 1/2 x 14	125	25	18,0	12,0	3R78718	**71,51**
G 5/8 x 14	125	25	18,0	14,5	3R78720	**89,23**
G 3/4 x 14	140	28	20,0	16,0	3R78722	**113,03**
G 7/8 x 14	150	28	22,0	18,0	3R78724	**150,82**
G 1 x 11	160	30	25,0	20,0	3R78726	**177,04**
G 1.1/8 x 11	170	30	28,0	22,0	3R78730	**266,54**
G 1.1/4 x 11	170	30	32,0	24,0	3R78734	**320,05**
G 1.3/8 x 11	180	32	36,0	29,0	3R78738	**422,41**
G 1.1/2 x 11	190	32	36,0	29,0	3R78742	**565,18**
G 1.3/4 x 11	190	32	40,0	32,0	3R78750	**679,25**
G 2 x 11	220	40	45,0	35,0	3R78754	**679,25**

Rc(BSPT) ROSCA INGLESA PARA TUBO, CONICIDAD 1:16

TAPERED PIPE THREAD, TAPER 1:16
FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16





ACERO 400-800 N/mm² | HSS-CO 5% | DIN 5156 | FORM C

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
Rc 1/8 x 28	90	20	7,0	5,5	3R73404	**44,44**
Rc 1/4 x 19	100	22	11,0	9,0	3R73406	**55,93**
Rc 3/8 x 19	100	22	12,0	9,0	3R73408	**69,60**
Rc 1/2 x 14	125	28	16,0	12,0	3R73410	**97,88**
Rc 3/4 x 14	140	28	20,0	16,0	3R73412	**144,48**
Rc 1 x 11	160	38	25,0	20,0	3R73414	**208,18**

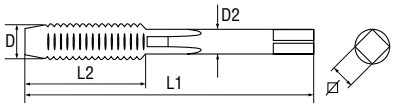
NPT ROSCA INGLESA PARA TUBO, CONICIDAD 1:16

TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16



ACERO 400-800 N/mm²

HSS-CO 5% | FORM C



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
NPT 1/16 x 27	90	20	6,0	4,9	3R73432	**47,45**
NPT 1/8 x 27	90	20	7,0	5,5	3R73434	**37,08**
NPT 1/4 x 18	100	22	11,0	9,0	3R73436	**46,67**
NPT 3/8 x 18	100	22	12,0	9,0	3R73438	**58,09**
NPT 1/2 x 14	125	28	16,0	12,0	3R73440	**81,68**
NPT 3/4 x 14	140	28	20,0	16,0	3R73442	**120,57**
NPT 1 x 11.5	160	38	25,0	20,0	3R73444	**173,73**

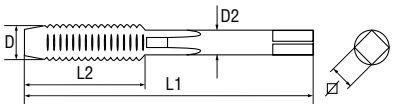
VG PARA ROSCAS DE VALVULAS DE NEUMÁTICO DIN 7756

FOR TIRE VALVES THREADS DIN 7756
POUR LES VALVES DES PNEUMATIQUES DIN 7756



ACERO 900 -1100 N/mm²

HSS-CO 5% | DIN 374 | FORM C | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
VG 5 X 36	70	12	6,00	2,70	3R30501	**141,64**
VG 5,2 X 24	80	17	6,00	3,40	3R30502	**237,25**
VG 6 X 32	80	14	6,00	4,90	3R30503	**271,82**
VG 8 X 32	80	16	7,00	4,90	3R30504	**161,25**
VG 10 X 28	90	18	8,00	6,20	3R30505	**319,34**
VG 12 X 26	100	22	8,00	8,00	3R30506	**375,70**

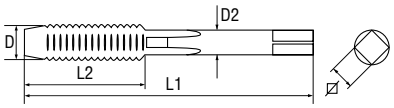
BSC PARA EJES DE PEDALIER

FOR BOTTOM BRACKET
POUR PÉDALIER VÉLO



ACERO 900 -1100 N/mm²

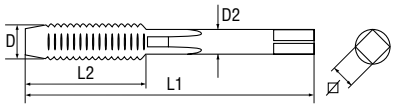
HSS-CO 5% | DIN 374 | FORM C | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSC 1/4" X 26	56	14	7	4,9	3R30507	**262,99**
BSC 5/16" X 26	63	16	6	4,9	3R30508	**278,02**
BSC 3/8" X 26	63	16	7	5,5	3R30509	**291,17**
BSC 9/16" X 20 R	70	22	11,00	9,00	3R30510	**174,32**
BSC 9/16" X 20 L	70	22	11,00	9,00	3R30511	**196,11**
BSC 1" X 24	70	22	11,00	11,00	3R30512	*

* Consultar precio y disponibilidad / *Request price and availability / Consulter le prix et le disponibilité*

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C | TOL 6H | LH



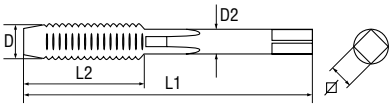
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R33426	**21,22**
M 4 x 0,70	63	13	4,5	3,4	3R33430	**21,60**
M 5 x 0,80	70	16	6,0	4,9	3R33434	**21,89**
M 6 x 1,00	80	19	6,0	4,9	3R33438	**22,82**
M 8 x 1,25	90	22	8,0	6,2	3R33442	**27,91**
M 10 x 1,50	100	24	10,0	8,0	3R33446	**31,91**

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R34450	**39,42**
M 14 x 2,00	110	30	11,0	9,0	3R34454	**52,68**
M 16 x 2,00	110	32	12,0	9,0	3R34458	**60,86**
M 18 x 2,50	125	34	14,0	11,0	3R34462	**90,29**
M 20 x 2,50	140	34	16,0	12,0	3R34466	**109,63**
M 22 x 2,50	140	34	18,0	14,5	3R34470	**125,72**
M 24 x 3,00	160	38	18,0	14,5	3R34474	**139,48**

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM B | TOL 6H | LH



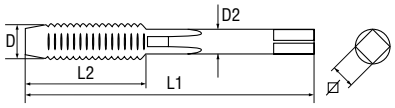
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R33526	**22,95**
M 4 x 0,70	63	13	4,5	3,4	3R33530	**22,86**
M 5 x 0,80	70	16	6,0	4,9	3R33534	**23,77**
M 6 x 1,00	80	19	6,0	4,9	3R33538	**24,90**
M 7 x 1,00	80	19	7,0	5,5	3R33540	**32,45**
M 8 x 1,25	90	22	8,0	6,2	3R33542	**28,79**
M 10 x 1,50	100	24	10,0	8,0	3R33546	**34,62**

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM B | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R34526	**23,80**
M 4 x 0,70	63	13	2,8	2,1	3R34530	**23,71**
M 5 x 0,80	70	16	3,5	2,7	3R34534	**24,65**
M 6 x 1,00	80	19	4,5	3,4	3R34538	**25,83**
M 8 x 1,25	90	22	6,0	4,9	3R34542	**29,86**
M 10 x 1,50	100	24	7,0	5,5	3R34546	**35,90**
M 12 x 1,75	110	29	9,0	7,0	3R34550	**45,67**
M 14 x 2,00	110	30	11,0	9,0	3R34554	**58,87**
M 16 x 2,00	110	32	12,0	9,0	3R34558	**69,33**
M 18 x 2,50	125	34	14,0	11,0	3R34562	**98,21**
M 20 x 2,50	140	34	16,0	12,0	3R34566	**115,40**
M 22 x 2,50	140	34	18,0	14,5	3R34570	**131,77**
M 24 x 3,00	160	38	18,0	14,5	3R34574	**151,59**
M 27 x 3,00	160	38	20,0	16,0	3R34576	**225,30**
M 30 x 3,50	180	45	22,0	18,0	3R34578	**241,81**
M 33 x 3,50	180	50	25,0	20,0	3R34580	**323,93**
M 36 x 4,00	200	56	28,0	22,0	3R34582	**532,73**
M 39 x 4,00	200	60	32,0	24,0	3R34584	**687,20**
M 42 x 4,50	200	60	32,0	24,0	3R34586	**786,78**
M 45 x 4,50	220	65	36,0	29,0	3R34588	**893,80**
M 48 x 5,00	250	70	36,0	29,0	3R34590	**981,69**
M 52 x 5,00	250	70	40,0	32,0	3R34592	**1.196,13**

MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 371 | FORM C/35° | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R33726	**26,98**
M 4 x 0,70	63	7	4,5	3,4	3R33730	**26,98**
M 5 x 0,80	70	8	6,0	4,9	3R33734	**28,33**
M 6 x 1,00	80	10	6,0	4,9	3R33738	**28,33**
M 8 x 1,25	90	14	8,0	6,2	3R33742	**34,27**
M 10 x 1,50	100	16	10,0	8,0	3R33746	**40,06**

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 376 | FORM C/35° | TOL 6H | LH

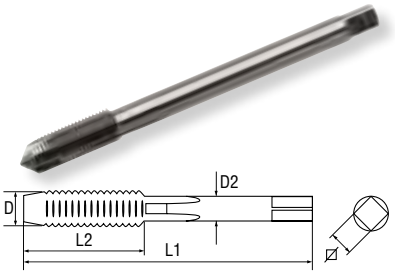


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	2,2	-	3R34726	**27,98**
M 4 x 0,70	63	7	2,8	2,1	3R34730	**27,98**
M 5 x 0,80	70	8	3,5	2,7	3R34734	**29,38**
M 6 x 1,00	80	10	4,5	3,4	3R34738	**29,38**
M 8 x 1,25	90	14	6,0	4,9	3R34742	**35,54**
M 10 x 1,50	100	16	7,0	5,5	3R34746	**41,54**
M 12 x 1,75	110	18	9,0	7,0	3R34750	**52,46**
M 14 x 2,00	110	20	11,0	9,0	3R34754	**68,12**
M 16 x 2,00	110	22	12,0	9,0	3R34758	**82,67**
M 18 x 2,50	125	25	14,0	11,0	3R34762	**111,83**
M 20 x 2,50	140	25	16,0	12,0	3R34766	**137,54**
M 22 x 2,50	140	27	18,0	14,5	3R34770	**157,91**
M 24 x 3,00	160	30	18,0	14,5	3R34774	**170,98**
M 27 x 3,00	160	30	20,0	16,0	3R34776	**267,17**
M 30 x 3,50	180	35	22,0	18,0	3R34778	**279,94**
M 33 x 3,50	180	35	25,0	20,0	3R34780	**385,47**
M 36 x 4,00	200	40	28,0	22,0	3R34782	**635,97**
M 39 x 4,00	200	40	32,0	24,0	3R34784	**691,49**
M 42 x 4,50	200	45	32,0	24,0	3R34786	**1.117,62**
M 45 x 4,50	220	45	36,0	29,0	3R34788	**1.268,65**
M 48 x 5,00	250	50	36,0	29,0	3R34790	**1.389,48**
M 52 x 5,00	250	50	40,0	32,0	3R34792	**1.691,54**

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS

METRIC ISO-THREAD DIN 13, LEFT HAND

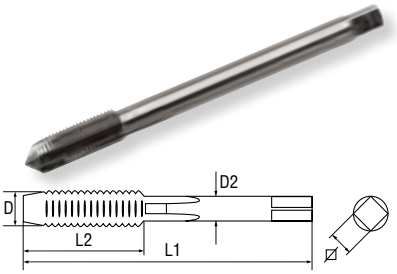
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,35	56	9	2,2	-	3R34801	52,34
M 4 x 0,35	63	10	2,8	2,1	3R34802	52,34
M 4 x 0,50	63	10	2,8	2,1	3R34803	46,43
M 5 x 0,50	70	12	3,5	2,7	3R34804	46,43
M 5 x 0,75	70	12	3,5	2,7	3R34805	43,63
M 6 x 0,50	80	14	4,5	3,4	3R34806	52,34
M 6 x 0,75	80	14	4,5	3,4	3R34807	44,35
M 7 x 0,75	80	14	5,5	4,3	3R34808	50,33
M 8 x 0,50	80	19	6,0	4,9	3R34809	52,34
M 8 x 0,75	80	19	6,0	4,9	3R34810	47,82
M 8 x 1,00	90	22	6,0	4,9	3R34811	44,35
M 9 x 0,75	80	19	7,0	5,5	3R34812	52,34
M 9 x 1,00	90	22	7,0	5,5	3R34813	55,26
M 10 x 0,75	90	20	7,0	5,5	3R34814	65,81
M 10 x 1,00	90	20	7,0	5,5	3R34815	48,96
M 10 x 1,25	100	24	7,0	5,5	3R34816	53,15
M 11 x 1,00	90	20	8,0	6,2	3R34817	71,33
M 11 x 1,25	90	22	8,0	6,2	3R34818	75,51
M 12 x 0,75	100	22	9,0	7,0	3R34819	81,35
M 12 x 1,00	100	22	9,0	7,0	3R34820	68,78
M 12 x 1,25	100	22	9,0	7,0	3R34821	68,78
M 12 x 1,50	100	22	9,0	7,0	3R34822	67,11
M 13 x 1,00	100	22	11,0	9,0	3R34823	109,07
M 13 x 1,50	100	22	11,0	9,0	3R34824	109,07
M 14 x 0,75	100	22	11,0	9,0	3R34825	116,69
M 14 x 1,00	100	22	11,0	9,0	3R34826	89,52
M 14 x 1,25	100	22	11,0	9,0	3R34827	83,70
M 14 x 1,50	100	22	11,0	9,0	3R34828	83,70
M 15 x 1,00	100	22	12,0	9,0	3R34829	117,47
M 15 x 1,50	100	22	12,0	9,0	3R34830	113,10
M 16 x 1,00	100	22	12,0	9,0	3R34831	109,07
M 16 x 1,25	100	22	12,0	9,0	3R34832	121,09
M 16 x 1,50	100	22	12,0	9,0	3R34833	95,10
M 18 x 1,00	110	25	14,0	11,0	3R34834	124,74
M 18 x 1,25	110	25	14,0	11,0	3R34835	143,64
M 18 x 1,50	110	25	14,0	11,0	3R34836	115,22
M 18 x 2,00	125	34	14,0	11,0	3R34837	127,25
M 20 x 1,00	125	25	16,0	12,0	3R34838	167,81
M 20 x 1,25	125	25	16,0	12,0	3R34839	179,57
M 20 x 1,50	125	25	16,0	12,0	3R34840	127,11
M 20 x 2,00	140	34	16,0	12,0	3R34841	146,86
M 21 x 1,50	125	25	16,0	12,0	3R34842	179,57
M 22 x 1,00	125	25	18,0	14,5	3R34843	181,80
M 22 x 1,25	125	25	18,0	14,5	3R34844	209,45
M 22 x 1,50	125	25	18,0	14,5	3R34845	159,36
M 22 x 2,00	140	34	18,0	14,5	3R34846	181,80
M 23 x 1,50	125	25	18,0	14,5	3R34847	239,39
M 24 x 1,00	140	28	18,0	14,5	3R34848	222,36
M 24 x 1,25	140	28	18,0	14,5	3R34849	239,39
M 24 x 1,50	140	28	18,0	14,5	3R34850	186,66
M 24 x 2,00	140	28	18,0	14,5	3R34851	206,96

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



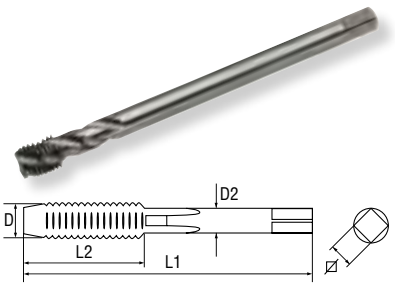
ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 25 x 1,0	140	28	18,0	14,5	3R34852	**239,39**
M 25 x 1,5	140	28	18,0	14,5	3R34853	**239,39**
M 26 x 1,0	140	28	18,0	14,5	3R3485X	**239,39**
M 26 x 1,5	140	28	18,0	14,5	3R34854	**209,76**
M 26 x 2,0	140	28	18,0	14,5	3R34855	**239,39**
M 27 x 1,0	140	28	20,0	16,0	3R34800	**299,25**
M 27 x 1,5	140	28	20,0	16,0	3R34856	**240,52**
M 27 x 2,0	140	28	20,0	16,0	3R34857	**269,34**
M 28 x 1,0	140	28	20,0	16,0	3R34858	**299,25**
M 28 x 1,5	140	28	20,0	16,0	3R34859	**240,52**
M 28 x 2,0	140	28	20,0	16,0	3R34860	**269,67**
M 29 x 1,5	150	28	22,0	18,0	3R34861	**344,14**
M 30 x 1,0	150	28	22,0	18,0	3R34862	**323,03**
M 30 x 1,5	150	28	22,0	18,0	3R34863	**265,97**
M 30 x 2,0	150	28	22,0	18,0	3R34864	**307,65**
M 30 x 2,5	180	45	22,0	18,0	3R3486X	**344,14**
M 30 x 3,0	180	45	22,0	18,0	3R34865	**344,14**
M 32 x 1,5	150	28	22,0	18,0	3R34866	**329,71**
M 32 x 2,0	150	28	22,0	18,0	3R34867	**448,87**
M 32 x 3,0	180	50	22,0	18,0	3R34892	**448,87**
M 33 x 1,5	160	30	25,0	20,0	3R34893	**349,59**
M 33 x 2,0	160	30	25,0	20,0	3R34868	**448,87**
M 33 x 3,0	180	50	25,0	20,0	3R34869	**448,87**
M 34 x 1,5	170	30	28,0	22,0	3R34870	**417,49**
M 34 x 2,0	170	30	28,0	22,0	3R34871	**417,49**
M 35 x 1,5	170	30	28,0	22,0	3R34872	**419,51**
M 36 x 1,5	170	30	28,0	22,0	3R34873	**523,80**
M 36 x 2,0	170	30	28,0	22,0	3R34874	**531,38**
M 36 x 3,0	200	56	28,0	22,0	3R34875	**601,29**
M 38 x 1,5	170	30	28,0	22,0	3R34876	**554,91**
M 39 x 1,5	170	30	32,0	24,0	3R34877	**573,33**
M 39 x 2,0	170	30	32,0	24,0	3R34878	**573,33**
M 39 x 3,0	200	60	32,0	24,0	3R34879	**573,33**
M 40 x 1,5	170	30	32,0	24,0	3R34880	**604,19**
M 40 x 2,0	170	30	32,0	24,0	3R34881	**671,21**
M 40 x 3,0	200	60	32,0	24,0	3R34882	**699,18**
M 42 x 1,5	170	30	32,0	24,0	3R34883	**674,20**
M 42 x 2,0	170	30	32,0	24,0	3R34884	**783,07**
M 42 x 3,0	200	60	32,0	24,0	3R34885	**811,05**
M 45 x 1,5	180	32	36,0	29,0	3R34886	**798,66**
M 45 x 2,0	180	32	36,0	29,0	3R34887	**798,66**
M 45 x 3,0	200	50	36,0	29,0	3R34888	**839,00**
M 48 x 1,5	190	32	36,0	29,0	3R34889	**959,43**
M 48 x 2,0	190	32	36,0	29,0	3R34890	**959,43**
M 48 x 3,0	225	50	36,0	29,0	3R34891	**959,43**
M 50 x 1,5	190	32	36,0	29,0	3R34894	**1.112,42**
M 50 x 2,0	190	32	36,0	29,0	3R34895	**1.112,42**
M 50 x 3,0	225	50	36,0	29,0	3R34896	**1.112,42**
M 52 x 1,5	190	32	40,0	32,0	3R34897	**1.226,53**
M 52 x 2,0	190	32	40,0	32,0	3R34898	**1.226,53**
M 52 x 3,0	225	50	40,0	32,0	3R34899	**1.226,53**

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS

METRIC ISO-THREAD DIN 13, LEFT HAND

MÉTRIQUE DIN-13, GAUCHE



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H | LH

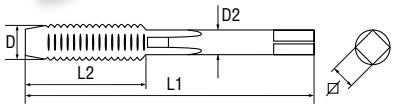
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,35	56	5	2,2	-	3R34901	**61,54**
M 4 x 0,35	63	5	2,8	2,1	3R34902	**61,54**
M 4 x 0,50	63	5	2,8	2,1	3R34903	**52,60**
M 5 x 0,50	70	5	3,5	2,7	3R34904	**53,51**
M 5 x 0,75	70	8	3,5	2,7	3R34905	**53,51**
M 6 x 0,50	80	5	4,5	3,4	3R34906	**61,54**
M 6 x 0,75	80	8	4,5	3,4	3R34907	**49,23**
M 7 x 0,75	80	8	5,5	4,3	3R34908	**61,54**
M 8 x 0,50	80	8	6,0	4,9	3R34909	**61,54**
M 8 x 0,75	80	8	6,0	4,9	3R34910	**61,54**
M 8 x 1,00	90	10	6,0	4,9	3R34911	**48,96**
M 9 x 0,75	80	10	7,0	5,5	3R34912	**62,97**
M 9 x 1,00	90	10	7,0	5,5	3R34913	**61,29**
M 10 x 0,75	90	10	7,0	5,5	3R34914	**63,19**
M 10 x 1,00	90	10	7,0	5,5	3R34915	**59,18**
M 10 x 1,25	100	16	7,0	5,5	3R34916	**60,46**
M 11 x 1,00	90	11	8,0	6,2	3R34917	**106,60**
M 11 x 1,25	90	14	8,0	6,2	3R34918	**106,60**
M 12 x 0,75	100	10	9,0	7,0	3R34919	**106,60**
M 12 x 1,00	100	11	9,0	7,0	3R34920	**76,27**
M 12 x 1,25	100	15	9,0	7,0	3R34921	**75,51**
M 12 x 1,50	100	15	9,0	7,0	3R34922	**75,51**
M 13 x 1,00	100	11	11,0	9,0	3R34923	**112,13**
M 13 x 1,50	100	15	11,0	9,0	3R34924	**112,13**
M 14 x 0,75	100	10	11,0	9,0	3R34925	**112,13**
M 14 x 1,00	100	11	11,0	9,0	3R34926	**106,55**
M 14 x 1,25	100	15	11,0	9,0	3R34927	**96,61**
M 14 x 1,50	100	15	11,0	9,0	3R34928	**92,28**
M 15 x 1,50	100	15	12,0	9,0	3R34930	**154,85**
M 16 x 1,00	100	12	12,0	9,0	3R34931	**168,61**
M 16 x 1,25	100	15	12,0	9,0	3R34932	**154,85**
M 16 x 1,50	100	15	12,0	9,0	3R34933	**119,86**
M 18 x 1,00	110	13	14,0	11,0	3R34934	**165,00**
M 18 x 1,25	110	15	14,0	11,0	3R34935	**165,00**
M 18 x 1,50	110	17	14,0	11,0	3R34936	**136,20**
M 18 x 2,00	125	20	14,0	11,0	3R34937	**165,00**
M 20 x 1,00	125	14	16,0	12,0	3R34938	**200,05**
M 20 x 1,25	125	17	16,0	12,0	3R34939	**200,05**
M 20 x 1,50	125	17	16,0	12,0	3R34940	**148,30**
M 20 x 2,00	140	20	16,0	12,0	3R34941	**200,05**
M 22 x 1,00	125	14	18,0	14,5	3R34943	**230,70**
M 22 x 1,25	125	17	18,0	14,5	3R34944	**230,70**
M 22 x 1,50	125	17	18,0	14,5	3R34945	**177,65**
M 22 x 2,00	140	20	18,0	14,5	3R34946	**245,09**
M 24 x 1,00	140	15	18,0	14,5	3R34948	**271,80**
M 24 x 1,25	140	17	18,0	14,5	3R34949	**258,76**
M 24 x 1,50	140	20	18,0	14,5	3R34950	**212,30**
M 24 x 2,00	140	20	18,0	14,5	3R34951	**258,76**
M 26 x 1,50	140	20	18,0	14,5	3R34954	**286,11**
M 26 x 2,00	140	20	18,0	14,5	3R34955	**286,11**
M 27 x 2,00	140	20	20,0	16,0	3R34957	**342,26**
M 28 x 1,50	140	20	20,0	16,0	3R34959	**342,26**

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS

METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H | LH



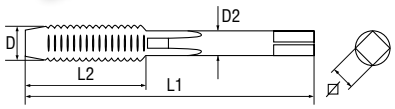
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 28 x 2,00	140	20	20,0	16,0	3R34960	**342,26**
M 30 x 1,00	150	17	22,0	18,0	3R34962	**371,00**
M 30 x 1,50	150	22	22,0	18,0	3R34963	**308,23**
M 30 x 2,00	150	22	22,0	18,0	3R34964	**385,25**
M 30 x 2,50	180	27	22,0	18,0	3R3496X	**385,25**
M 30 x 3,00	180	30	22,0	18,0	3R34965	**385,25**
M 32 x 2,00	150	22	22,0	18,0	3R34967	**456,18**
M 33 x 2,00	160	24	25,0	20,0	3R34968	**456,18**
M 34 x 1,50	170	24	28,0	22,0	3R34970	**461,90**
M 34 x 2,00	170	24	28,0	22,0	3R34971	**461,90**
M 36 x 1,50	170	24	28,0	22,0	3R34973	**583,46**
M 36 x 2,00	170	24	28,0	22,0	3R34974	**583,46**
M 36 x 3,00	200	30	28,0	22,0	3R34975	**583,46**
M 38 x 1,50	170	24	28,0	22,0	3R34976	**615,53**
M 39 x 2,00	170	25	32,0	24,0	3R34978	**615,53**
M 40 x 1,50	170	25	32,0	24,0	3R34980	**680,92**
M 40 x 2,00	170	25	32,0	24,0	3R34981	**680,92**
M 40 x 3,00	200	30	32,0	24,0	3R34982	**680,49**
M 42 x 2,00	170	25	32,0	24,0	3R34984	**765,58**
M 45 x 1,50	180	27	36,0	29,0	3R34986	**896,30**
M 45 x 2,00	180	27	36,0	29,0	3R34987	**896,30**
M 45 x 3,00	200	30	36,0	29,0	3R34988	**896,30**
M 48 x 2,00	190	27	36,0	29,0	3R34990	**1.067,69**
M 50 x 1,50	190	27	36,0	29,0	3R34994	**1.236,57**
M 50 x 2,00	190	27	36,0	29,0	3R34995	**1.236,57**
M 50 x 3,00	225	33	36,0	29,0	3R34996	**1.236,57**
M 52 x 1,50	190	27	40,0	32,0	3R34997	**1.361,86**
M 52 x 2,00	190	27	40,0	32,0	3R34998	**1.361,86**
M 52 x 3,00	225	33	40,0	32,0	3R34999	**1.361,86**

G(BSP) ROSCA GAS DIN ISO 228, IZQUIERDAS

PIPE THREAD DIN ISO 228, LEFT HAND
FILETAGE PAS GAZ DIN ISO 228, GAUCHE



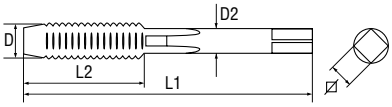
HSS-CO 5% | DIN 5156 | FORM C | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78202	**54,50**
G 1/4 x 19	100	22	11,0	9,0	3R78203	**68,08**
G 3/8 x 19	100	22	12,0	9,0	3R78204	**89,88**
G 1/2 x 14	125	25	16,0	12,0	3R78205	**117,11**
G 5/8 x 14	125	25	18,0	14,5	3R78206	**138,90**
G 3/4 x 14	140	28	20,0	16,0	3R78207	**177,06**
G 1 x 11	160	30	25,0	20,0	3R78208	**258,76**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

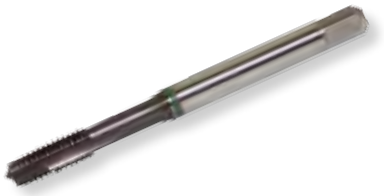


BANDA VERDE PM
GREEN RING PM • BANDE VERT PM

advance MAXIMO RENDIMIENTO

ACERO 900-1100 N/mm² | INOX | CU | PM | DIN 371 | FORM B | TOL 6H | HL

NEW



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R30226	**29,41**
M 4,0 x 0,70	63	12	4,5	3,4	3R30230	**30,05**
M 5,0 x 0,80	70	13	6	4,9	3R30234	**31,72**
M 6,0 x 1,00	80	15	6	4,9	3R30238	**31,72**
M 8,0 x 1,25	90	18	8	6,2	3R30242	**36,72**
M 10,0 x 1,50	100	20	10	8	3R30246	**43,96**

advance MAXIMO RENDIMIENTO

ACERO 900-1100 N/mm² | INOX | CU | PM | DIN 376 | FORM B | TOL 6H | HL

NEW

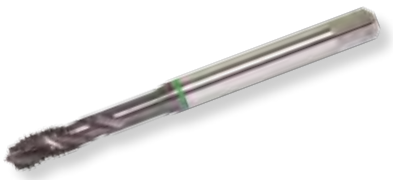


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R30250	**55,96**
M 14,0 x 2,00	110	25	11	9	3R30254	**70,54**
M 16,0 x 2,00	110	25	12	9	3R30258	**73,71**
M 18,0 x 2,50	125	30	14	11	3R30262	**110,65**
M 20,0 x 2,50	140	30	16	12	3R30266	**114,15**

advance MAXIMO RENDIMIENTO

ACERO 900-1100 N/mm² | INOX | CU | PM | DIN 371 | FORM C/35° | TOL 6H | HL

NEW



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,50	2,70	3R30126	**33,70**
M 4,0 x 0,70	63	7	4,50	3,40	3R30130	**33,70**
M 5,0 x 0,80	70	8	6,00	4,90	3R30134	**34,58**
M 6,0 x 1,00	80	10	6,00	4,90	3R30138	**35,93**
M 8,0 x 1,25	90	13	8,00	6,20	3R30142	**41,89**
M 10,0 x 1,50	100	15	10,00	8,00	3R30146	**49,44**

advance MAXIMO RENDIMIENTO

ACERO 900-1100 N/mm² | INOX | CU | PM | DIN 376 | FORM C/35° | TOL 6H | HL

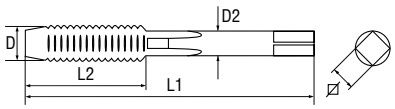
NEW



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	18	9,00	7,00	3R30150	**63,91**
M 14,0 x 2,00	110	20	11,00	9,00	3R30154	**79,33**
M 16,0 x 2,00	110	20	12,00	9,00	3R30158	**87,23**
M 18,0 x 2,50	125	25	14,00	11,00	3R30162	**126,23**
M 20,0 x 2,50	140	25	16,00	12,00	3R30166	**130,52**

*Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



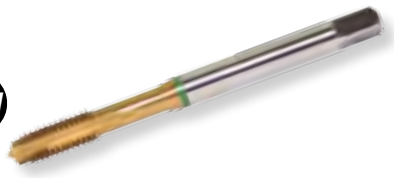
BANDA VERDE - MULTIMATERIAL
GREEN RING - MULTIMATERIAL • BANDE VERT - MULTIMATERIEL

advance MAXIMO RENDIMIENTO

ACERO 900-1100 N/mm² | INOX | AL | CU | F | LT

HSS-E-V3 | DIN 371 | FORM B | TOL 6H | TIN

NEW



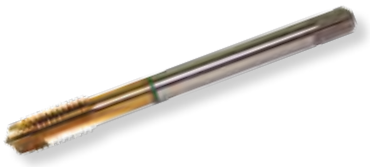
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R30426	**20,51**
M 4,0 x 0,70	63	12	4,5	3,4	3R30430	**20,75**
M 5,0 x 0,80	70	13	6	4,9	3R30434	**21,46**
M 6,0 x 1,00	80	15	6	4,9	3R30438	**21,62**
M 8,0 x 1,25	90	18	8	6,2	3R30442	**24,96**
M 10,0 x 1,50	100	20	10	8	3R30446	**29,33**

advance MAXIMO RENDIMIENTO

ACERO 900-1100 N/mm² | INOX | AL | CU | F | LT

HSS-E-V3 | DIN 376 | FORM B | TOL 6H | TIN

NEW



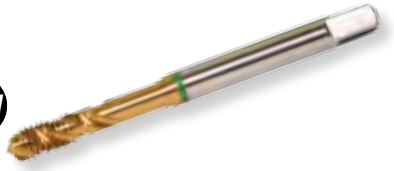
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R30450	**37,20**
M 14,0 x 2,00	110	25	11	9	3R30454	**48,57**
M 16,0 x 2,00	110	25	12	11	3R30458	**53,66**
M 18,0 x 2,50	125	30	14	11	3R30462	**76,63**
M 20,0 x 2,50	140	30	16	12	3R30466	**79,17**

advance MAXIMO RENDIMIENTO

ACERO 900-1100 N/mm² | INOX | AL | CU | F | LT

HSS-E-V3 | DIN 371 | FORM C/35° | TOL 6H | TIN

NEW



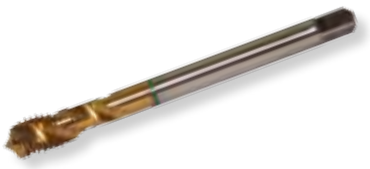
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R30326	**22,18**
M 4,0 x 0,70	63	7	4,5	3,4	3R30330	**22,18**
M 5,0 x 0,80	70	8	6	4,9	3R30334	**22,66**
M 6,0 x 1,00	80	10	6	4,9	3R30338	**23,77**
M 8,0 x 1,25	90	13	8	6,2	3R30342	**27,50**
M 10,0 x 1,50	100	15	10	8	3R30346	**32,35**

advance MAXIMO RENDIMIENTO

ACERO 900-1100 N/mm² | INOX | AL | CU | F | LT

HSS-E-V3 | DIN 376 | FORM C/35° | TOL 6H | TIN

NEW

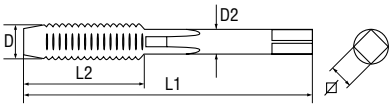


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	18	9	7	3R30350	**42,29**
M 14,0 x 2,00	110	20	11	9	3R30354	**52,86**
M 16,0 x 2,00	110	20	12	9	3R30358	**58,11**
M 18,0 X 2,50	125	25	14	11	3R30362	**83,78**
M 20,0 x 2,50	140	25	16	12	3R30366	**86,41**

*Para otras medidas consultar / *Request for other sizes* / *Pour d'autres dimensions, nous consulter*

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

BANDA BLANCA *WHITE RING • BANDE BLANC*





ACERO 900 -1100 N/mm² · INOX · HSS-CO 5% · DIN 371 · FORM B · TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R35226	**17,96**
M 4 x 0,70	63	13	4,5	3,4	3R35230	**17,96**
M 5 x 0,80	70	16	6,0	4,9	3R35234	**19,25**
M 6 x 1,00	80	19	6,0	4,9	3R35238	**19,90**
M 8 x 1,25	90	22	8,0	6,2	3R35242	**22,45**
M 10 x 1,50	100	24	10,0	8,0	3R35246	**26,96**

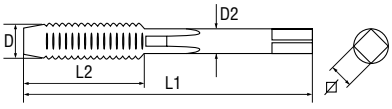


ACERO 900 -1100 N/mm² · INOX · HSS-CO 5% · DIN 376 · FORM B · TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R35250	**34,66**
M 14 x 2,00	110	30	11,0	9,0	3R35254	**47,49**
M 16 x 2,00	110	32	12,0	9,0	3R35258	**53,90**
M 18 x 2,50	125	34	14,0	11,0	3R35262	**82,14**
M 20 x 2,50	140	34	16,0	12,0	3R35266	**92,25**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

BANDA BLANCA *WHITE RING • BANDE BLANC*





ACERO 900 -1100 N/mm² · INOX · HSS-CO 5% · DIN 371 · FORM C/40° · TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R36226	**22,70**
M 4 x 0,70	63	7	4,5	3,4	3R36230	**22,70**
M 5 x 0,80	70	8	6,0	4,9	3R36234	**23,92**
M 6 x 1,00	80	10	6,0	4,9	3R36238	**23,92**
M 8 x 1,25	90	14	8,0	6,2	3R36242	**27,85**
M 10 x 1,50	100	16	10,0	8,0	3R36246	**32,80**



ACERO 900 -1100 N/mm² · INOX · HSS-CO 5% · DIN 376 · FORM C/40° · TOL 6H

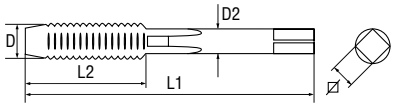
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	18	9,0	7,0	3R36250	**40,66**
M 14 x 2,00	110	20	11,0	9,0	3R36254	**52,88**
M 16 x 2,00	110	22	12,0	9,0	3R36258	**62,83**
M 18 x 2,50	125	25	14,0	11,0	3R36262	**83,41**
M 20 x 2,50	140	25	16,0	12,0	3R36266	**112,97**

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

BANDA BLANCA *WHITE RING • BANDE BLANC*



ACERO 900-1100 N/mm² | INOX | HSS-CO 5% | DIN 374 | FORM B



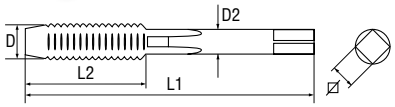
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 5 x 0,50	70	12	3,5	2,7	3R35903	**41,22**
M 6 x 0,75	80	14	4,5	3,4	3R35904	**41,22**
M 8 x 0,75	80	19	6,0	4,9	3R35906	**41,22**
M 8 x 1,00	90	22	6,0	4,9	3R35907	**41,22**
M 10 x 1,00	90	20	7,0	5,5	3R35909	**48,08**
M 10 x 1,25	100	24	7,0	5,5	3R35910	**48,08**
M 12 x 1,25	100	22	9,0	5,5	3R35913	**65,94**
M 12 x 1,50	100	22	9,0	7,0	3R35914	**65,94**
M 14 x 1,50	100	22	11,0	9,0	3R35917	**82,43**
M 16 x 1,50	100	22	12,0	9,0	3R35921	**94,80**
M 18 x 1,50	110	25	14,0	11,0	3R35925	**115,41**
M 20 x 1,50	125	25	16,0	12,0	3R35929	**127,77**

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

BANDA BLANCA *WHITE RING • BANDE BLANC*



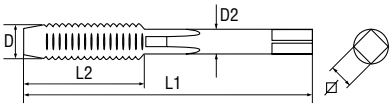
ACERO 900-1100 N/mm² | INOX | HSS-CO 5% | DIN 374 | FORM C/39°



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 5 x 0,50	70	5	3,5	2,7	3R36903	**46,72**
M 6 x 0,75	80	8	4,5	3,4	3R36904	**46,72**
M 8 x 0,75	80	8	6,0	4,9	3R36906	**46,72**
M 8 x 1,00	90	10	6,0	4,9	3R36907	**46,72**
M 10 x 1,00	90	10	7,0	5,5	3R36909	**56,33**
M 10 x 1,25	100	16	7,0	5,5	3R36910	**55,51**
M 12 x 1,25	100	15	9,0	7,0	3R36913	**71,45**
M 12 x 1,50	100	15	9,0	7,0	3R36914	**71,45**
M 14 x 1,50	100	15	11,0	9,0	3R36917	**87,93**
M 16 x 1,50	100	15	12,0	9,0	3R36921	**101,67**
M 18 x 1,50	110	17	14,0	11,0	3R36925	**126,40**
M 20 x 1,50	125	17	16,0	12,0	3R36929	**140,14**

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 900 -1100 N/mm² | INOX | HSS-CO 5% | DIN 371 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC 1/4 x 20	80	17	7,0	5,5	3R35945	**30,22**
UNC 5/16 x 18	90	20	8,0	6,2	3R35946	**38,47**
UNC 3/8 x 16	100	22	9,0	7,0	3R35947	**43,97**

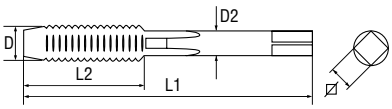
ACERO 900 -1100 N/mm² | INOX | HSS-CO 5% | DIN 376 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC 7/16 x 14	100	22	8,0	6,2	3R35948	**52,21**
UNC 1/2 x 13	110	25	9,0	7,0	3R35949	**52,21**

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 900 -1100 N/mm² | INOX | HSS-CO 5% | DIN 371 | FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€ €/Unid.
UNC 1/4 x 20	80	17	7,0	5,5	3R36945	**37,64**
UNC 5/16 x 18	90	20	8,0	6,2	3R36946	**45,34**
UNC 3/8 x 16	100	22	9,0	7,0	3R36947	**50,02**

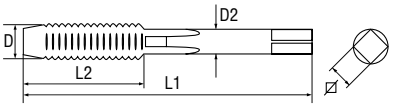
ACERO 900 -1100 N/mm² | INOX | HSS-CO 5% | DIN 376 | FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC 7/16 x 14	100	22	8,0	6,2	3R36948	**63,21**
UNC 1/2 x 13	110	25	9,0	7,0	3R36949	**63,21**

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 900-1100 N/mm² · INOX · HSS-CO 5% · DIN 371 · FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF 1/4 x2 8	80	17	7,0	5,5	3R35965	**30,22**
UNF 5/16 x 24	90	17	8,0	6,2	3R35966	**38,48**
UNF 3/8 x 24	100	18	9,0	7,0	3R35967	**43,97**

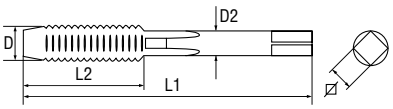
ACERO 900-1100 N/mm² · INOX · HSS-CO 5% · DIN 376 · FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF 7/16 x 20	100	22	8,0	6,2	3R35968	**52,21**
UNF 1/2 x 20	100	22	9,0	7,0	3R35969	**52,21**

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 900-1100 N/mm² · INOX · HSS-CO 5% · DIN 371 · FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF 1/4 x 28	80	10	7,0	5,5	3R36965	**37,64**
UNF 5/16 x 24	90	10	8,0	6,2	3R36966	**45,35**
UNF 3/8 x 24	100	10	9,0	7,0	3R36967	**50,01**

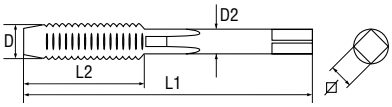
ACERO 900-1100 N/mm² · INOX · HSS-CO 5% · DIN 376 · FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF 7/16 x 20	100	13	8,0	6,2	3R36968	**63,21**
UNF 1/2 x 20	100	13	9,0	7,0	3R36969	**63,21**

G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



BANDA BLANCA *WHITE RING • BANDE BLANC*

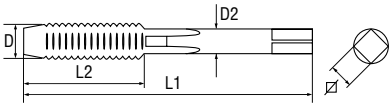
ACERO 900 -1100 N/mm² | INOX | HSS-CO 5% | DIN 5156 | FORM B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R35992	**49,46**
G 1/4 x 19	100	22	11,0	9,0	3R35993	**60,45**
G 3/8 x 19	100	22	12,0	9,0	3R35994	**71,44**
G 1/2 x 14	125	25	16,0	12,0	3R35995	**104,42**

G(BSP) ROSCA GAS DIN ISO 228

PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



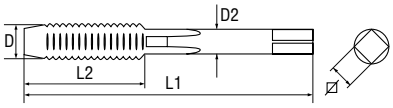
BANDA BLANCA *WHITE RING • BANDE BLANC*

ACERO 900 -1100 N/mm² | INOX | HSS-CO 5% | DIN 5156 | FORM C/39°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R36992	**54,96**
G 1/4 x 19	100	22	11,0	9,0	3R36993	**68,70**
G 3/8 x 19	100	22	12,0	9,0	3R36994	**86,56**
G 1/2 x 14	125	25	16,0	12,0	3R36995	**120,90**

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA NEGRA PM - PARA MATERIALES DUROS
BLACK RING PM - FOR HARD MATERIALS • BANDE NOIR PM - POUR MATÉRIAUX DURS

ADVANCE MAXIMO RENDIMIENTO

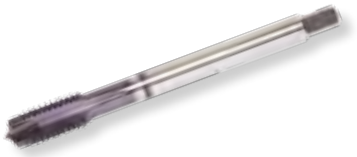
ACERO 1100 -1400 N/mm² | PM | DIN 371 | FORM B | TOL 6H | FUTURA



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R35126	**29,09**
M 4,0 x 0,70	63	7	4,5	3,4	3R35130	**29,81**
M 5,0 x 0,80	70	8	6	4,9	3R35134	**31,40**
M 6,0 x 1,00	80	10	6	4,9	3R35138	**31,40**
M 8,0 x 1,25	90	13	8	6,2	3R35142	**36,33**
M 10,0 x 1,50	100	15	10	8	3R35146	**43,40**

ADVANCE MAXIMO RENDIMIENTO

ACERO 1100 -1400 N/mm² | PM | DIN 376 | FORM B | TOL 6H | FUTURA



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 X 1,75	110	23	9	7	3R35150	**55,41**

ADVANCE MAXIMO RENDIMIENTO

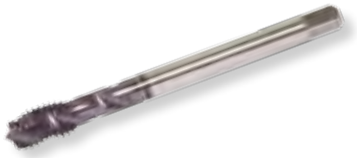
ACERO 1100 -1400 N/mm² | PM | DIN 371 | FORM C/40° | TOL 6H | FUTURA



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R36126	**33,23**
M 4,0 x 0,70	63	7	4,5	3,4	3R36130	**33,23**
M 5,0 x 0,80	70	8	6	4,9	3R36134	**33,94**
M 6,0 x 1,00	80	10	6	4,9	3R36138	**35,45**
M 8,0 x 1,25	90	13	8	6,2	3R36142	**41,26**
M 10,0 x 1,50	100	15	10	8	3R36146	**48,81**

ADVANCE MAXIMO RENDIMIENTO

ACERO 1100 -1400 N/mm² | PM | DIN 376 | FORM C/40° | TOL 6H | FUTURA



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 X 1,75	110	18	9	7	3R36150	**63,28**

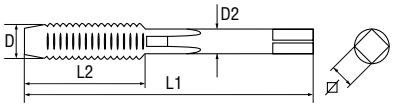
ADVANCE MAXIMO RENDIMIENTO

ACERO 1100 -1400 N/mm² | PM | DIN 371 | FORM C/15° | TOL 6H | FUTURA



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 5,0 x 0,80	70	8	6	4,9	3R35154	**33,94**
M 6,0 x 1,00	80	10	6	4,9	3R35158	**35,45**
M 8,0 x 1,25	90	13	8	6,2	3R35162	**41,26**
M 10,0 x 1,50	100	15	10	8	3R35166	**48,81**

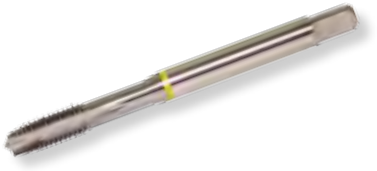
M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA AMARILLA - PARA ALUMINIO
YELLOW RING - FOR ALUMINIUM • BANDE JAUNE - POUR L'ALUMINIUM

advance MAXIMO RENDIMIENTO

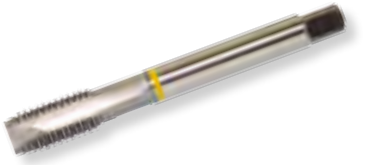
AL | HSS-CO 5% | DIN 371 | FORM B | TOL 6H | ALUSPEED



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R35426	**25,52**
M 4,0 x 0,70	63	12	4,5	3,4	3R35430	**25,76**
M 5,0 x 0,80	70	13	6	4,9	3R35434	**26,55**
M 6,0 x 1,00	80	15	6	4,9	3R35438	**26,55**
M 8,0 x 1,25	90	18	8	6,2	3R35442	**31,16**
M 10,0 x 1,50	100	20	10	8	3R35446	**36,41**

advance MAXIMO RENDIMIENTO

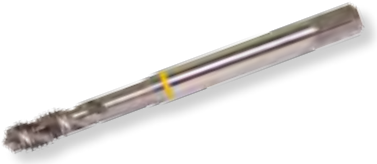
AL | HSS-CO 5% | DIN 376 | FORM B | TOL 6H | ALUSPEED



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R35450	**46,18**
M 14,0 x 2,00	110	25	11	9	3R35454	**60,33**
M 16,0 x 2,00	110	25	12	11	3R35458	**66,77**
M 18,0 x 2,50	125	30	14	11	3R35462	**95,39**
M 20,0 x 2,50	140	30	16	12	3R35466	**98,57**

advance MAXIMO RENDIMIENTO

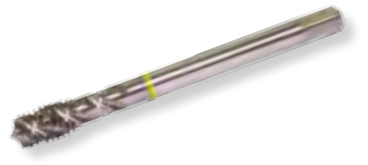
AL | HSS-CO 5% | DIN 371 | FORM C/45° | TOL 6H | ALUSPEED



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R36426	**27,42**
M 4,0 x 0,70	63	7	4,5	3,4	3R36430	**27,42**
M 5,0 x 0,80	70	8	6	4,9	3R36434	**28,14**
M 6,0 x 1,00	80	10	6	4,9	3R36438	**29,41**
M 8,0 x 1,25	90	13	8	6,2	3R36442	**34,10**
M 10,0 x 1,50	100	15	10	8	3R36446	**40,06**

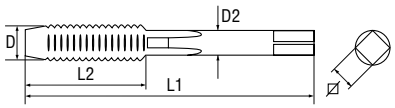
advance MAXIMO RENDIMIENTO

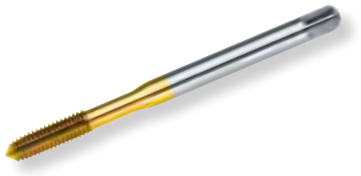
AL | HSS-CO 5% | DIN 376 | FORM C/45° | TOL 6H | ALUSPEED



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	18	9	7	3R36450	**52,62**
M 14,0 x 2,00	110	20	11	9	3R36454	**65,58**
M 16,0 x 2,00	110	20	12	11	3R36458	**72,34**
M 18,0 x 2,50	125	25	14	11	3R36462	**103,90**
M 20,0 x 2,50	140	25	16	12	3R36466	**107,47**

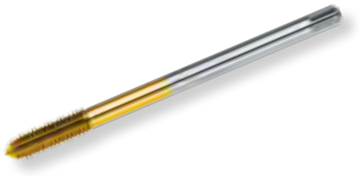
M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13





AL | HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	11	3,5	2,7	3R35530	**26,94**
M 4,0 x 0,70	63	13	4,5	3,4	3R35532	**29,40**
M 5,0 x 0,80	70	16	6	4,9	3R35533	**31,35**
M 6,0 x 1,00	80	19	6	4,9	3R35534	**32,58**
M 8,0 x 1,25	90	22	8	6,2	3R35535	**39,70**
M 10,0 x 1,50	100	24	10	8	3R35536	**48,27**



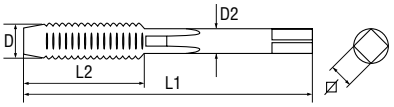
AL | HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	28	9	7	3R35537	**62,92**

DIÁMETRO BROCA PREVIA / *RECOMMENDED TAPPINNG DRILL SIZES* / *DIAMÈTRES PRÉALABLES AU FILETAGE*

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12	Ø M14	Ø M16
2,80	3,70	4,65	5,55	7,45	9,30	11,20	13,00	15,10

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



CON RANURAS PARA LUBRICACIÓN *WITH OIL GROOVE • AVEC RANURE GRAISSAGE*



AL | HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€
M 3,0 x 0,50	56	11	3,5	2,7	3R35630	**29,40**
M 4,0 x 0,70	63	13	4,5	3,4	3R35632	**32,09**
M 5,0 x 0,80	70	16	6	4,9	3R35633	**34,54**
M 6,0 x 1,00	80	19	6	4,9	3R35634	**35,77**
M 8,0 x 1,25	90	22	8	6,2	3R35635	**43,37**
M 10,0 x 1,50	100	24	10	8	3R35636	**52,19**



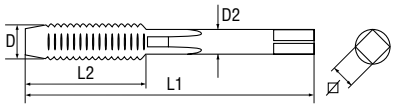
AL | HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€
M 12,0 x 1,75	110	28	9	7	3R35637	**66,61**

DIÁMETRO BROCA PREVIA / *RECOMMENDED TAPPINNG DRILL SIZES / DIAMÈTRES PRÉALABLES AU FILETAGE*

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12	Ø M14	Ø M16
2,80	3,70	4,65	5,55	7,45	9,30	11,20	13,00	15,10

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-CO 5% | DIN 357 | TOL 6H | TOL ISO2



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	70	22	2,2	-	3R37126	**29,24**
M 4 x 0,70	90	25	2,8	2,1	3R37130	**29,24**
M 5 x 0,80	100	28	3,5	2,7	3R37134	**30,70**
M 6 x 1,00	110	32	4,5	3,4	3R37138	**30,70**
M 8 x 1,25	125	40	6,0	4,9	3R37142	**33,93**
M 10 x 1,50	140	45	7,0	5,5	3R37146	**45,46**

ACERO 400-800 N/mm² | HSS-CO 5% | DIN 357 | TOL 6H | TOL ISO2



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	180	50	9,0	7,0	3R37150	**61,38**
M 14 x 2,00	200	56	11,0	9,0	3R37154	**76,62**
M 16 x 2,00	200	63	12,0	9,0	3R37158	**94,19**
M 18 x 2,50	220	63	14,0	11,0	3R37162	**105,38**
M 20 x 2,50	250	70	16,0	12,0	3R37166	**122,77**
M 22 x 2,50	280	80	18,0	14,5	3R37170	**142,55**
M 24 x 3,00	280	80	18,0	14,5	3R37174	**168,18**

Materiales tratados superficialmente (galvanizados, cromados…) / *For pre plate material for galvanising* / *Pour matériaux présentant une couche de galvanisation*

Tr PUNTA PILOTO, TRAPEZOIDAL DIN 13

PILOTED, TRAPEZOIDAL THREAD DIN103

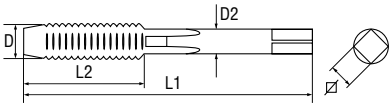
POUR FILETAGE TRAPÉZOIDAL DIN 103



ACERO 400-800 N/mm²

HSS-G

TOL 7H



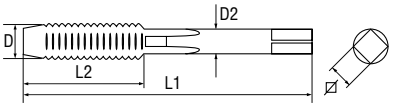
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
Tr 10 x 2	110	63	7	5,5	3R79108	**458,81**
Tr 10 x 3	125	75	7	5,5	3R79112	**458,81**
Tr 12 x 3	165	111	8	6,2	3R79116	**394,52**
Tr 14 x 3	140	85	10	8,0	3R79120	**421,32**
Tr 14 x 4	170	112	10	8,0	3R79124	**421,32**
Tr 16 x 4	180	116	11	9,0	3R79128	**458,16**
Tr 18 x 4	190	120	12	9,0	3R79132	**471,56**
Tr 20 x 4	200	124	14	11,0	3R79136	**490,07**
Tr 22 x 4	210	130	16	12,0	3R79139	**636,33**
Tr 22 x 5	235	155	16	12,0	3R79140	**636,33**
Tr 24 x 5	245	160	18	14,5	3R79144	**731,89**
Tr 26 x 5	255	165	20	16,0	3R79148	**763,59**
Tr 28 x 5	265	170	22	18,0	3R79152	**851,52**
Tr 30 x 6	290	185	22	18,0	3R79156	**997,77**
Tr 32 x 6	300	191	25	20,0	3R79160	**1.218,78**
Tr 36 x 6	310	200	28	22,0	3R79164	**1.247,91**

Tr PUNTA PILOTO, TRAPEZOIDAL DIN 13, IZQUIERDAS

PILOTED, TRAPEZOIDAL THREAD DIN103, LEFT HAND
POUR FILETAGE TRAPÉZOIDAL DIN 103 À GAUCHE



ACERO 400-800 N/mm² | HSS-G | TOL 7H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
Tr 10 x 2	110	63	7	5,5	3R79108-L	**673,37**
Tr 10 x 3	125	75	7	5,5	3R79112-L	**673,37**
Tr 12 x 3	165	111	8	6,2	3R79116-L	**578,63**
Tr 14 x 3	140	85	10	8,0	3R79120-L	**615,35**
Tr 14 x 4	170	112	10	8,0	3R79124-L	**615,35**
Tr 16 x 4	180	116	11	9,0	3R79128-L	**671,97**
Tr 18 x 4	190	120	12	9,0	3R79132-L	**695,42**
Tr 20 x 4	200	124	14	11,0	3R79136-L	**719,95**
Tr 22 x 5	235	155	16	12,0	3R79140-L	**934,71**
Tr 24 x 5	245	160	18	14,5	3R79144-L	**1.070,73**
Tr 26 x 5	255	165	20	16,0	3R79148-L	**1.119,96**
Tr 28 x 5	265	170	22	18,0	3R79152-L	**1.246,71**
Tr 30 x 6	290	185	22	18,0	3R79156-L	**1.463,93**
Tr 32 x 6	300	191	25	20,0	3R79160-L	**1.786,56**
Tr 36 x 6	310	200	28	22,0	3R79164-L	**1.830,72**

Consultar disponiblidad / *Request availability* / *Consulter le disponibilité*

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm²

HSS-G

DIN 223

TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 1,0 x 0,25	16 x 5	4R27402	**43,29**
M 1,1 x 0,25	16 x 5	4R27404	**43,29**
M 1,2 x 0,25	16 x 5	4R27406	**39,58**
M 1,4 x 0,25	16 x 5	4R27408	**39,58**
M 1,6 x 0,35	16 x 5	4R27410	**37,10**
M 1,7 x 0,35	16 x 5	4R27412	**37,10**
M 1,8 x 0,35	16 x 5	4R27414	**37,10**
M 2,0 x 0,40	16 x 5	4R27416	**27,21**
M 2,2 x 0,45	16 x 5	4R27418	**30,91**
M 2,3 x 0,40	16 x 5	4R27420	**30,91**
M 2,5 x 0,45	16 x 5	4R27422	**30,91**
M 2,6 x 0,45	16 x 5	4R27424	**30,91**
M 3,0 x 0,50	20 x 5	4R27426	**21,02**
M 3,5 x 0,60	20 x 5	4R27428	**21,02**
M 4,0 x 0,70	20 x 5	4R27430	**21,02**
M 4,5 x 0,75	20 x 7	4R27432	**21,02**
M 5,0 x 0,80	20 x 7	4R27434	**21,02**
M 5,5 x 0,90	20 x 7	4R27436	**21,02**
M 6,0 x 1,00	20 x 7	4R27438	**21,02**
M 7,0 x 1,00	25 x 9	4R27440	**21,02**
M 8,0 x 1,25	25 x 9	4R27442	**21,02**
M 9,0 x 1,25	25 x 9	4R27444	**21,02**
M 10,0 x 1,50	30 x 11	4R27446	**24,74**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 11 x 1,50	30 x 11	4R27448	**24,74**
M 12 x 1,75	38 x 14	4R27450	**28,44**
M 14 x 2,00	38 x 14	4R27454	**28,44**
M 15 x 2,00	38 x 14	4R27456	**48,49**
M 16 x 2,00	45 x 18	4R27458	**41,00**
M 18 x 2,50	45 x 18	4R27462	**41,00**
M 19 x 2,50	45 x 18	4R27464	**41,00**
M 20 x 2,50	45 x 18	4R27466	**41,00**
M 22 x 2,50	55 x 22	4R27470	**71,40**
M 24 x 3,00	55 x 22	4R27474	**71,40**
M 27 x 3,00	65 x 25	4R27476	**102,89**
M 30 x 3,50	65 x 25	4R27478	**102,89**
M 33 x 3,50	65 x 25	4R27480	**102,89**
M 36 x 4,00	65 x 25	4R27482	**102,89**
M 39 x 4,00	75 x 30	4R27484	**160,76**
M 42 x 4,50	75 x 30	4R27486	**160,76**
M 45 x 4,50	90 x 36	4R27488	**265,88**
M 48 x 5,00	90 x 36	4R27490	**265,88**
M 52 x 5,00	90 x 36	4R27492	**265,88**
M 56 x 5,50	105 x 36	4R27494	**569,99**
M 60 x 5,50	105 x 36	4R27496	**569,99**
M 64 x 6,00	120 x 36	4R27498	**745,35**
M 68 x 6,00	120 x 36	4R27499	**745,35**

DIN 223 = DIN EN 22568

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

DIÁMETRO EXTERIORES ESPECIALES
EXTERNAL ESPECIFIC DIAMETRES • DIMÉTRES EXTÉRIEURES SPÉCIALES



ACERO 400-800 N/mm² | HSS-G | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,5	25 x 9	4R27826	**21,40**
M 4 x 0,7	25 x 9	4R27830	**21,40**
M 5 x 0,8	25 x 9	4R27834	**21,40**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 6 x 1,0	25 x 9	4R27838	**21,40**
M 10 x 1,50	25 x 9	4R27846	**21,40**
M 12 x 1,75	25 x 9	4R27850	**21,40**



ACERO 400-800 N/mm² | HSS-G | TOL 6g | FORM A

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,50	25,4	4R27926	**21,40**
M 4 x 0,70	25,4	4R27930	**21,40**
M 5 x 0,80	25,4	4R27934	**21,40**
M 6 x 1,00	25,4	4R27938	**21,40**
M 8 x 1,25	25,4	4R27942	**21,40**
M 10 x 1,50	25,4	4R27946	**21,40**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 12 x 1,75	25,4	4R27950	**21,40**
M 14 x 2,00	38,1	4R27954	**34,63**
M 16 x 2,00	38,1	4R27958	**34,63**
M 18 x 2,50	38,1	4R27962	**34,63**
M 20 x 2,50	38,1	4R27966	**34,63**

TOLERANCIA 6e *SPECIAL TOLERANCE • TOLERANCE SPÉCIALE*



ACERO 400-800 N/mm² | HSS-G | DIN 223 | TOL 6e

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,50	20 x 5	4R27503	**23,12**
M 4 x 0,70	20 x 5	4R27505	**23,12**
M 5 x 0,80	20 x 7	4R27507	**23,12**
M 6 x 1,00	20 x 7	4R27509	**23,13**
M 8 x 1,25	25 x 9	4R27511	**23,12**
M 10 x 1,50	30 x 11	4R27513	**27,22**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 12 x 1,75	38 x 14	4R27515	**34,12**
M 14 x 2,00	38 x 14	4R27516	**42,67**
M 16 x 2,00	45 x 18	4R27517	**72,74**
M 18 x 2,50	45 x 18	4R27518	**72,74**
M 20 x 2,50	45 x 18	4R27519	**72,74**

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm²

HSS-G | **DIN 223** | TOL **6g**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 2,5 x 0,35	16 x 5	4R26404	31,79
M 2,6 x 0,35	16 x 5	4R26405	31,79
M 3,0 x 0,35	20 x 5	4R26408	28,97
M 3,5 x 0,35	20 x 5	4R26409	28,97
M 4,0 x 0,35	20 x 5	4R26410	28,97
M 4,0 x 0,50	20 x 5	4R26412	28,97
M 4,5 x 0,50	20 x 5	4R26413	28,97
M 5,0 x 0,50	20 x 5	4R26414	28,97
M 5,0 x 0,75	20 x 7	4R26416	28,97
M 5,5 x 0,50	20 x 5	4R26415	28,97
M 6,0 x 0,50	20 x 5	4R26417	28,97
M 6,0 x 0,75	20 x 7	4R26418	28,97
M 7,0 x 0,50	25 x 9	4R26419	28,97
M 7,0 x 0,75	25 x 9	4R26420	24,24
M 8,0 x 0,50	25 x 9	4R26422	28,97
M 8,0 x 0,75	25 x 9	4R26424	24,24
M 8,0 x 1,00	25 x 9	4R26426	24,24
M 9,0 x 0,50	25 x 9	4R26427	32,50
M 9,0 x 0,75	25 x 9	4R26428	32,50
M 9,0 x 1,00	25 x 9	4R26430	27,31
M 10,0 x 0,50	30 x 11	4R26431	33,81
M 10,0 x 0,75	30 x 11	4R26432	33,81
M 10,0 x 1,00	30 x 11	4R26436	32,74
M 10,0 x 1,25	30 x 11	4R26438	32,74
M 11,0 x 1,00	30 x 11	4R26440	40,30
M 11,0 x 1,25	30 x 11	4R26442	40,30
M 12,0 x 0,50	38 x 10	4R26445	40,30
M 12,0 x 0,75	38 x 10	4R26443	40,30
M 12,0 x 1,00	38 x 10	4R26444	41,62
M 12,0 x 1,25	38 x 10	4R26446	41,62
M 12,0 x 1,50	38 x 10	4R26448	40,30
M 13,0 x 0,50	38 x 10	4R26447	55,96
M 13,0 x 0,75	38 x 10	4R26449	55,96
M 13,0 x 1,00	38 x 10	4R26450	44,77
M 13,0 x 1,50	38 x 10	4R26451	44,77
M 14,0 x 0,50	38 x 10	4R26455	69,96
M 14,0 x 0,75	38 x 10	4R26452	69,96
M 14,0 x 1,00	38 x 10	4R26453	40,30
M 14,0 x 1,25	38 x 10	4R26454	40,30
M 14,0 x 1,50	38 x 10	4R26456	40,30
M 15,0 x 0,75	38 x 10	4R26457	72,75
M 15,0 x 1,00	38 x 10	4R26458	55,54
M 15,0 x 1,50	38 x 10	4R26460	55,54
M 16,0 x 0,50	45 x 14	4R26461	71,22
M 16,0 x 0,75	45 x 14	4R26463	71,22
M 16,0 x 1,00	45 x 14	4R26462	55,54
M 16,0 x 1,25	45 x 14	4R26464	55,54
M 16,0 x 1,50	45 x 14	4R26466	50,36
M 17,0 x 1,00	45 x 14	4R26468	87,75
M 17,0 x 1,50	45 x 14	4R26469	87,75

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 18 x 0,50	45 x 14	4R26467	87,75
M 18 x 0,75	45 x 14	4R26473	87,75
M 18 x 1,00	45 x 14	4R26470	50,36
M 18 x 1,25	45 x 14	4R26471	50,36
M 18 x 1,50	45 x 14	4R26472	51,57
M 18 x 2,00	45 x 14	4R26474	56,65
M 19 x 1,00	45 x 14	4R26475	87,75
M 19 x 1,50	45 x 14	4R26476	59,96
M 20 x 0,50	45 x 14	4R26477	87,75
M 20 x 0,75	45 x 14	4R26479	87,75
M 20 x 1,00	45 x 14	4R26478	56,65
M 20 x 1,25	45 x 14	4R26480	62,96
M 20 x 1,50	45 x 14	4R26484	51,57
M 20 x 2,00	45 x 14	4R26486	62,96
M 21 x 1,00	45 x 14	4R26487	89,88
M 21 x 1,50	45 x 14	4R26488	89,88
M 22 x 0,50	55 x 16	4R26489	125,78
M 22 x 0,75	55 x 16	4R26491	125,78
M 22 x 1,00	55 x 16	4R26490	88,13
M 22 x 1,25	55 x 16	4R26492	95,67
M 22 x 1,50	55 x 16	4R26494	97,15
M 22 x 2,00	55 x 16	4R26496	114,51
M 23 x 1,00	55 x 16	4R26497	125,78
M 23 x 1,50	55 x 16	4R26498	95,67
M 24 x 0,50	55 x 16	4R26601	125,78
M 24 x 0,75	55 x 16	4R26603	125,78
M 24 x 1,00	55 x 16	4R26600	88,13
M 24 x 1,25	55 x 16	4R26602	95,67
M 24 x 1,50	55 x 16	4R26604	88,13
M 24 x 2,00	55 x 16	4R26606	88,13
M 25 x 1,00	55 x 16	4R26607	107,02
M 25 x 1,50	55 x 16	4R26608	107,02
M 26 x 1,00	55 x 16	4R26610	107,02
M 26 x 1,50	55 x 16	4R26612	107,02
M 26 x 2,00	55 x 16	4R26614	107,02
M 27 x 1,00	65 x 18	4R26616	118,91
M 27 x 1,50	65 x 18	4R26617	118,91
M 27 x 2,00	65 x 18	4R26618	118,91
M 28 x 1,00	65 x 18	4R26620	118,91
M 28 x 1,50	65 x 18	4R26622	118,91
M 28 x 2,00	65 x 18	4R26624	118,91
M 29 x 1,50	65 x 18	4R26626	125,92
M 30 x 1,00	65 x 18	4R26628	125,92
M 30 x 1,50	65 x 18	4R26630	116,72
M 30 x 2,00	65 x 18	4R26632	125,92
M 30 x 2,50	65 x 18	4R26633	125,92
M 30 x 3,00	65 x 25	4R26634	125,92
M 32 x 1,00	65 x 18	4R26639	193,05
M 32 x 1,50	65 x 18	4R26636	116,72
M 32 x 2,00	65 x 18	4R26635	125,92

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm² | HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 32 x 3,0	65 x 25	4R26637	**125,92**
M 33 x 1,5	65 x 18	4R26638	**116,72**
M 33 x 2,0	65 x 18	4R26640	**125,92**
M 33 x 3,0	65 x 25	4R26642	**125,92**
M 34 x 1,0	65 x 18	4R26643	**193,05**
M 34 x 1,5	65 x 18	4R26644	**123,21**
M 34 x 2,0	65 x 18	4R26646	**132,90**
M 35 x 1,0	65 x 18	4R26647	**193,05**
M 35 x 1,5	65 x 18	4R26648	**123,21**
M 35 x 2,0	65 x 18	4R26649	**193,05**
M 36 x 1,0	65 x 18	4R26651	**193,05**
M 36 x 1,5	65 x 18	4R26650	**124,40**
M 36 x 2,0	65 x 18	4R26652	**124,40**
M 36 x 3,0	65 x 25	4R26654	**131,06**
M 37 x 1,5	65 x 18	4R26653	**309,50**
M 38 x 1,0	75 x 20	4R26655	**309,50**
M 38 x 1,5	75 x 20	4R26656	**198,70**
M 38 x 2,0	75 x 20	4R26657	**198,70**
M 38 x 3,0	75 x 30	4R26659	**309,50**
M 39 x 1,5	75 x 20	4R26658	**189,83**
M 39 x 2,0	75 x 20	4R26660	**189,83**
M 39 x 3,0	75 x 30	4R26662	**189,83**
M 40 x 1,0	75 x 20	4R26663	**189,83**
M 40 x 1,5	75 x 20	4R26664	**189,83**
M 40 x 2,0	75 x 20	4R26666	**189,83**
M 40 x 3,0	75 x 30	4R26668	**189,83**
M 42 x 1,0	75 x 20	4R26669	**189,83**
M 42 x 1,5	75 x 20	4R26670	**189,83**
M 42 x 2,0	75 x 20	4R26672	**189,83**
M 42 x 3,0	75x30	4R26674	**189,83**
M 44 x 1,5	90 x 22	4R26671	**421,77**
M 44 x 2,0	90 x 22	4R26673	**421,77**
M 45 x 1,0	90 x 22	4R26675	**421,77**
M 45 x 1,5	90 x 22	4R26676	**312,23**
M 45 x 2,0	90 x 22	4R26678	**312,23**
M 45 x 3,0	90 x 22	4R26680	**312,23**
M 46 x 1,5	90 x 22	4R26681	**421,77**
M 48 x 1,0	90 x 22	4R26683	**421,77**
M 48 x 1,5	90 x 22	4R26682	**312,23**
M 48 x 2,0	90 x 22	4R26684	**312,23**
M 48 x 3,0	90 x 36	4R26686	**312,23**
M 50 x 1,5	90 x 22	4R26688	**312,23**
M 50 x 2,0	90 x 22	4R26690	**312,23**
M 50 x 3,0	90 x 36	4R26692	**312,23**
M 52 x 1,5	90 x 22	4R26694	**312,23**
M 52 x 2,0	90 x 22	4R26696	**312,23**
M 52 x 3,0	90 x 36	4R26698	**312,23**
M 54 x 1,0	105 x 22	4R28267	**615,25**
M 54 x 1,5	105 x 22	4R28150	**615,25**
M 54 x 2,0	105 x 22	4R28151	**615,25**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 54 x 3,0	105 x 36	4R28152	**615,25**
M 54 x 4,0	105 x 36	4R28153	**615,25**
M 55 x 1,5	105 x 22	4R28154	**615,25**
M 55 x 2,0	105 x 22	4R28155	**615,25**
M 55 x 3,0	105 x 36	4R28156	**615,25**
M 55 x 4,0	105 x 36	4R28157	**615,25**
M 56 x 1,0	105 x 22	4R28268	**615,25**
M 56 x 1,5	105 x 22	4R28158	**615,25**
M 56 x 2,0	105 x 22	4R28159	**615,25**
M 56 x 3,0	105 x 36	4R28160	**615,25**
M 56 x 4,0	105 x 36	4R28161	**615,25**
M 58 x 1,0	105 x 22	4R28269	**615,25**
M 58 x 1,5	105 x 22	4R28162	**615,25**
M 58 x 2,0	105 x 22	4R28163	**615,25**
M 58 x 3,0	105 x 36	4R28164	**615,25**
M 58 x 4,0	105 x 36	4R28165	**615,25**
M 60 x 1,5	105 x 22	4R28166	**615,25**
M 60 x 2,0	105 x 22	4R28167	**615,25**
M 60 x 3,0	105 x 36	4R28168	**615,25**
M 60 x 4,0	105 x 36	4R28169	**615,25**
M 62 x 1,5	105 x 22	4R28170	**615,25**
M 62 x 2,0	105 x 22	4R28171	**615,25**
M 62 x 3,0	105 x 36	4R28172	**615,25**
M 62 x 4,0	105 x 36	4R28173	**615,25**
M 63 x 1,5	105 x 22	4R28174	**615,25**
M 64 x 1,5	120 x 22	4R28175	**695,51**
M 64 x 2,0	120 x 22	4R28176	**695,51**
M 64 x 3,0	120 x 36	4R28177	**695,51**
M 64 x 4,0	120 x 36	4R28178	**695,51**
M 65 x 1,5	120 x 22	4R28179	**695,51**
M 65 x 2,0	120 x 22	4R28180	**695,51**
M 65 x 3,0	120 x 36	4R28181	**695,51**
M 65 x 4,0	120 x 36	4R28182	**695,51**
M 68 x 1,5	120 x 22	4R28183	**695,51**
M 68 x 2,0	120 x 22	4R28184	**695,51**
M 68 x 3,0	120 x 36	4R28185	**695,51**
M 68 x 4,0	120 x 36	4R28186	**695,51**
M 70 x 1,5	120 x 22	4R28187	**695,51**
M 70 x 2,0	120 x 22	4R28188	**695,51**
M 70 x 3,0	120 x 36	4R28189	**695,51**
M 70 x 4,0	120 x 36	4R28190	**695,51**
M 72 x 1,5	120 x 22	4R28191	**695,51**
M 72 x 2,0	120 x 22	4R28192	**695,51**
M 72 x 3,0	120 x 36	4R28193	**695,51**
M 72 x 4,0	120 x 36	4R28194	**695,51**
M 74 x 1,5	120 x 22	4R28195	**695,51**
M 74 x 2,0	120 x 22	4R28196	**695,51**
M 74 x 3,0	120 x 36	4R28197	**695,51**
M 74 x 4,0	120 x 36	4R28198	**695,51**
M 75 x 1,5	120 x 22	4R28199	**695,51**

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13

MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm²

HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 75 x 2,0	120 x 22	4R28200	**695,51**
M 75 x 3,0	120 x 36	4R28201	**695,51**
M 75 x 4,0	120 x 36	4R28202	**695,51**
M 76 x 1,5	120 x 22	4R28203	**695,51**
M 76 x 2,0	120 x 22	4R28204	**695,51**
M 76 x 3,0	120 x 36	4R28205	**695,51**
M 76 x 4,0	120 x 36	4R28206	**695,51**
M 78 x 1,5	120 x 22	4R28207	**695,51**
M 78 x 2,0	120 x 22	4R28208	**695,51**
M 78 x 3,0	120 x 36	4R28209	**695,51**
M 78 x 4,0	120 x 36	4R28210	**695,51**
M 80 x 1,5	120 x 22	4R28211	**695,51**
M 80 x 2,0	120 x 22	4R28212	**695,51**
M 80 x 3,0	120 x 36	4R28213	**695,51**
M 80 x 4,0	120 x 36	4R28214	**695,51**
M 82 x 1,5	130 x 25	4R28215	**882,74**
M 82 x 2,0	130 x 25	4R28216	**882,74**
M 82 x 3,0	130 x 36	4R28217	**882,74**
M 82 x 4,0	130 x 36	4R28218	**882,74**
M 84 x1,5	130 x 25	4R28219	**882,74**
M 84 x 2,0	130 x 25	4R28220	**882,74**
M 84 x 3,0	130 x 36	4R28221	**882,74**
M 84 x 4,0	130 x 36	4R28222	**882,74**
M 85 x 1,5	130 x 25	4R28223	**882,74**
M 85 x 2,0	130 x 25	4R28224	**882,74**
M 85 x 3,0	130 x 36	4R28225	**882,74**
M 85 x 4,0	130 x 36	4R28226	**882,74**
M 86 x 1,5	140 x 22	4R28227	**1.102,11**
M 86 x 2,0	140 x 22	4R28228	**1.102,11**
M 86 x 3,0	140 x 22	4R28229	**1.102,11**
M 86 x 4,0	140 x 22	4R28230	**1.102,11**
M 88 x 1,5	140 x 22	4R28231	**1.102,11**
M 88 x 2,0	140 x 22	4R28232	**1.102,11**
M 88 x 3,0	140 x 22	4R28233	**1.102,11**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 88 x 4,0	140 x 22	4R28234	**1.102,11**
M 90 x 1,5	140 x 22	4R28235	**1.102,11**
M 90 x 2,0	140 x 22	4R28236	**1.102,11**
M 90 x 3,0	140 x 22	4R28237	**1.102,11**
M 90 x 4,0	140 x 22	4R28238	**1.102,11**
M 92 x 1,5	140 x 22	4R28239	**1.102,11**
M 92 x 2,0	140 x 22	4R28240	**1.102,11**
M 92 x 3,0	140 x 22	4R28241	**1.102,11**
M 92 x 4,0	140 x 22	4R28242	**1.102,11**
M 95 x 1,5	140 x 22	4R28243	**1.102,11**
M 95 x 2,0	140 x 22	4R28244	**1.102,11**
M 95 x 3,0	140 x 22	4R28245	**1.102,11**
M 95 x 4,0	140 x 22	4R28246	**1.102,11**
M 96 x 1,5	140 x 22	4R28247	**1.102,11**
M 96 x 2,0	140 x 22	4R28248	**1.102,11**
M 96 x 3,0	140 x 22	4R28249	**1.102,11**
M 96 x 4,0	140 x 22	4R28250	**1.102,11**
M 98 x 1,5	150 x 25	4R28251	**1.324,14**
M 98 x 2,0	150 x 25	4R28252	**1.324,14**
M 98 x 3,0	150 x 25	4R28253	**1.324,14**
M 98 x 4,0	150 x 25	4R28254	**1.324,14**
M 100 x 1,5	150 x 25	4R28255	**1.324,14**
M 100 x 2,0	150 x 25	4R28256	**1.324,14**
M 100 x 3,0	150 x 25	4R28257	**1.324,14**
M 100 x 4,0	150 x 25	4R28258	**1.324,14**
M 105 x 1,5	150 x 25	4R28259	**1.324,14**
M 105 x 2,0	150 x 25	4R28260	**1.324,14**
M 105 x 3,0	150 x 25	4R28261	**1.324,14**
M 105 x 4,0	150 x 25	4R28262	**1.324,14**
M 110 x 1,5	160 x 25	4R28263	**1.444,49**
M 110 x 2,0	160 x 25	4R28264	**1.444,49**
M 110 x 3,0	160 x 25	4R28265	**1.444,49**
M 110 x 4,0	160 x 25	4R28266	**1.444,49**

DIN 223 = DIN EN 22568

BSW ROSCA WITHWORTH BS 84
WITHWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84



HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSW 1/16 x 60	16 x 5	4R22402	31,48
BSW 3/32 x 48	16 x 5	4R22404	36,52
BSW 1/8 x 40	20 x 5	4R22406	31,48
BSW 5/32 x 32	20 x 5	4R22408	31,48
BSW 3/16 x 24	20 x 7	4R22410	31,48
BSW 7/32 x 24	20 x 7	4R22412	31,48
BSW 1/4 x 20	20 x 7	4R22414	32,32
BSW 5/16 x 18	25 x 9	4R22416	32,32
BSW 3/8 x 16	30 x 11	4R22418	32,32
BSW 7/16 x 14	30 x 11	4R22420	32,32
BSW 1/2 x 12	38 x 14	4R22422	38,78
BSW 9/16 x 12	38 x 14	4R22424	45,26
BSW 5/8 x 11	45 x 18	4R22426	51,71
BSW 3/4 x 10	45 x 18	4R22430	51,71
BSW 7/8 x 9	55 x 22	4R22434	77,57
BSW 1 x 8	55 x 22	4R22438	77,57
BSW 1.1/8 x 7	65 x 25	4R22442	129,29
BSW 1.1/4 x 7	65 x 25	4R22446	129,29
BSW 1.3/8 x 6	65 x 25	4R22450	129,29
BSW 1.1/2 x 6	65 x 25	4R22452	129,29
BSW 1.1/2 x 6	75 x 30	4R22454	204,28
BSW 1.5/8 x 5	75 x 30	4R22458	206,85
BSW 1.3/4 x 5	90 x 36	4R22462	297,35
BSW 1.7/8 x 4.1/2	90 x 36	4R22466	310,28
BSW 2 x 4.1/2	90 x 36	4R22470	310,28
BSW 2.1/4 x 4	105 x 36	4R22472	1.005,46
BSW 2.1/2 x 4	105 x 36	4R22474	1.005,46
BSW 2.3/4 x 3.1/2	120 x 36	4R22476	1.235,28
BSW 3 x 3.1/2	120 x 36	4R22478	1.235,28

DIN 223 = DIN EN 22568

BSF ROSCA BRITÁNICA STANDARD FINA BS 84

BRITISH STANDARD FINE THREAD BS 84
FILETAGE BRITANIQUE BSF, BS 84



ACERO 400-800 N/mm² | HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSF 3/16 x32	20 x 7	4R22810	34,28
BSF 1/4 x26	20 x 7	4R22814	34,28
BSF 5/16 x 22	25 x 9	4R22816	34,28
BSF 3/8 x 20	30 x 11	4R22818	37,41
BSF 7/16 x 18	30 x 11	4R22820	34,28
BSF 1/2 x 16	38 x 10	4R22822	51,43

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSF 9/16 x 16	38 x 10	4R22824	54,57
BSF 5/8 x 14	45 x 14	4R22826	78,16
BSF 3/4 x 12	45 x 14	4R22830	78,16
BSF 7/8 x 11	55 x 22	4R22834	96,67
BSF 1" x 10	55 x 20	4R22838	96,67

DIN 223 = DIN EN 22568

BA ROSCA BA, BS 93

BA THREAD BS93
FILÉTAGE BA, BS 93



ACERO 400-800 N/mm² | HSS-G | BS1127 | FORM A

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BA 0	20.6 x 6.35	4R89000	27,98
BA 1	20.6 x 6.35	4R89001	27,98
BA 2	20.6 x 6.35	4R89002	27,98
BA 3	20.6 x 6.35	4R89003	27,98

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BA 4	20.6 x 6.35	4R89004	27,98
BA 5	20.6 x 6.35	4R89005	27,98
BA 6	20.6 x 6.35	4R89006	27,98

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1.

UNIFIED COARSE THREAD, ANSI B.1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
Nr. 1 x 64	16 x 5	4R23401	39,04
Nr. 2 x 56	16 x 5	4R23402	39,04
Nr. 3 x 48	16 x 5	4R23403	39,04
Nr. 4 x 40	20 x 5	4R23404	28,45
Nr. 5 x 40	20 x 5	4R23405	28,45
Nr. 6 x 32	20 x 7	4R23406	28,45
Nr. 8 x 32	20 x 7	4R23408	28,45
Nr. 10 x 24	20 x 7	4R23410	28,45
Nr. 12 x 24	20 x 7	4R23412	28,45
Nr. 1/4 x 20	20 x 7	4R23414	28,45
Nr. 5/16 x 18	25 x 9	4R23416	28,45
Nr. 3/8 x 16	30 x 11	4R23418	28,45
Nr. 7/16 x 14	30 x 11	4R23420	34,62
Nr. 1/2 x 13	38 x 14	4R23422	34,62

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
9/16 x 12	38 x 14	4R23424	42,04
5/8 x 11	45 x 18	4R23426	55,65
3/4 x 10	45 x 18	4R23430	55,65
7/8 x 9	55 x 22	4R23434	80,39
1 x 8	55 x 22	4R23438	80,39
1.1/8 x 7	65 x 25	4R23442	123,67
1.1/4 x 7	65 x 25	4R23446	123,67
1.3/8 x 6	65 x 25	4R23450	123,67
1.1/2 x 6	65 x 25	4R23452	123,67
1.1/2 x 6	75 x 30	4R23454	247,33
1.5/8 x 5	75 x 30	4R23458	247,33
1.3/4 x 5	90 x 36	4R23462	370,99
1.7/8 x 4.1/2	90 x 36	4R23466	370,99
2 x 4.1/2	90 x 36	4R23470	370,99

DIN 223 = DIN EN 22568

UNF ROSCA FINA UNIFICADA ANSI B.1.1

UNIFIED FINE THREAD, ANSI B.1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



ACERO 400-800 N/mm²

HSS-G **DIN 223**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
Nr. 0 x 80	16 x 5	4R24400	**39,75**
Nr. 1 x 72	16 x 5	4R24401	**39,75**
Nr. 2 x 64	16 x 5	4R24402	**39,75**
Nr. 3 x 56	16 x 5	4R24403	**48,07**
Nr. 4 x 48	20 x 5	4R24404	**28,97**
Nr. 5 x 44	20 x 5	4R24405	**28,97**
Nr. 6 x 40	20 x 5	4R24406	**28,97**
Nr. 8 x 36	20 x 7	4R24408	**28,97**
Nr. 10 x 32	20 x 7	4R24410	**28,97**
Nr. 12 x 28	20 x 7	4R24412	**28,97**
Nr. 1/4 x 28	20 x 7	4R24414	**28,97**
Nr. 5/16 x 24	25 x 9	4R24416	**29,74**
Nr. 3/8 x 24	30 x 11	4R24418	**29,74**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
7/16 x 20	30 x 11	4R24420	**32,32**
1/2 x 20	38 x 10	4R24422	**38,78**
9/16 x 18	38 x 10	4R24424	**45,26**
5/8 x 18	45 x 14	4R24426	**58,17**
3/4 x 16	45 x 14	4R24430	**58,17**
7/8 x 14	55 x 16	4R24434	**77,57**
1 x12	55 x 16	4R24438	**77,57**
1 x14	55 x 16	4R24440	**77,57**
1.1/8 x 12	65 x 18	4R24442	**129,29**
1.1/4 x 12	65 x 18	4R24446	**129,29**
1.3/8 x 12	65 x 18	4R24450	**129,29**
1.1/2 x 12	65 x 18	4R24452	**129,29**
1.1/2 x 12	75 x 20	4R24454	**206,85**

DIN 223 = DIN EN 22568

UNEF ROSCA GRUESA UNIFICADA ANSI B 1.1.

UNIFIED COARSE THREAD, ANSI B.1.1
FILETAGE UNIFIÉ PAS FIN ANSI B 1.1



HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	20 x 7	4R24612	**34,97**
UNEF 1/4 x 32	20 x 7	4R24614	**34,97**
UNEF 5/16 x 32	25 x 9	4R24615	**44,51**
UNEF 3/8 x 32	30 x 11	4R24616	**50,87**
UNEF 7/16 x 28	30 x 11	4R24620	**50,87**
UNEF 1/2 x 28	38 x 10	4R24621	**76,31**
UNEF 9/16 x 24	25 x 9	4R24625	**76,31**
UNEF 5/8 x 24	30 x 11	4R24626	**120,82**
UNEF 11/16 x 24	25 x 9	4R24627	**120,82**
UNEF 3/4 x 20	30 x 11	4R24633	**120,82**
UNEF 13/16 x 20	55 x 16	4R24634	**143,07**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNEF 7/8 x 20	55 x 16	4R24635	**143,07**
UNEF 15/16 x 20	55 x 16	4R24636	**143,07**
UNEF 1 x 20	55 x 16	4R24637	**143,07**
UNEF 1.1/16 x 18	65 x 18	4R24645	**228,91**
UNEF 1.1/8 x 18	65 x 18	4R24646	**228,91**
UNEF 1.3/16 x 18	65 x 18	4R24647	**228,91**
UNEF 1.1/4 x 18	65 x 18	4R24648	**228,91**
UNEF 1.5/16 x 18	65 x 18	4R24649	**228,91**
UNEF 1.3/8 x 18	65 x 18	4R24650	**228,91**
UNEF 1.7/16 x 18	75 x 20	4R24651	**286,14**
UNEF 1.1/2 x 18	75 x 20	4R24652	**286,14**

DIN 223 = DIN EN 22568

G(BSP) ROSCA FINA UNIFICADA ANSI B.1.1

UNIFIED FINE THREAD, ANSI B.1.1
FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm²

HSS-G

DIN 5158

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R25412	37,77
G 1/4 x 19	38 x 10	4R25414	35,25
G 3/8 x 19	45 x 14	4R25416	50,36
G 1/2 x 14	45 x 14	4R25418	50,36
G 5/8 x 14	55 x 16	4R25420	75,55
G 3/4 x 14	55 x 16	4R25422	82,26
G 7/8 x 14	65 x 18	4R25424	113,59
G 1 x 11	65 x 18	4R25426	113,59
G 1.1/8 x 11	75 x 20	4R25430	155,12
G 1.1/4 x 11	75 x 20	4R25434	155,12
G 1.3/8 x 11	90 x 22	4R25438	239,75

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1.1/2 x 11	90 x 22	4R25442	239,75
G 1.5/8 x 11	90 x 22	4R25446	252,59
G 1.3/4 x 11	105 x 22	4R25450	421,41
G 2 x 11	90 x 22	4R25452	274,88
G 2 x 11	105 x 22	4R25454	436,99
G 2.1/4 x 11	120 x 22	4R25458	928,62
G 2.1/2 x 11	120 x 22	4R25462	928,62
G 2.3/4 x 11	120 x 22	4R25466	928,62
G 3 x 11	130 x 25	4R25470	1.021,47
G 3.1/2 x 11	150 x 25	4R25474	1.644,96
G 4 x 11	160 x 25	4R25478	2.122,52

DIN 223 = DIN EN 22568

R(BSPT) ROSCA INGLESA PARA TUBO, CONICIDAD 1:16

TAPERED PIPE THREAD, TAPER 1:16
FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16



ACERO 400-800 N/mm²

HSS-G

FORM A

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
PT 1/8 x 28	38 x 11	4R97006	44,0
PT 1/4 x 19	38 x 16	4R97014	44,0
PT 3/8 x 19	50 x 18	4R97020	90,4
PT 1/2 x 14	50 x 22	4R97022	90,4

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
PT 3/4 x 14	50 x 24	4R97030	90,4
PT 1 x 11	63 x 28	4R97040	150,8
PT 1.1/4 x 11	75 x 32	4R97048	203,6

PG ROSCA PARA TUBOS BLINDADOS DIN 40 430

ARMOURED TUBE THREAD DIN 40 430
FILETAGE ÉLECTRIQUE DIN 40 430



ACERO 400-800 N/mm²

HSS-G

DIN 40434

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
PG 7 x 20	38 x 10	4R25807	66,92
PG 9 x 18	45 x 14	4R25809	81,67
PG 11 x 18	45 x 14	4R25811	83,06
PG 13.5 x 18	45 x 14	4R25813	83,06
PG 16 x 18	55 x 16	4R25816	96,71

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
PG 21 x 16	65 x 18	4R25821	149,68
PG 29 x 16	65 x 18	4R25829	149,68
PG 36 x 16	90 x 22	4R25836	327,61
PG 42 x 16	105 x 22	4R25842	379,81
PG 48 x 16	105 x 22	4R25848	418,43

NPT ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16

AMERICAN TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16



ACERO 400-800 N/mm² | HSS-G

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
NPT 1/16 x 27	25 x 9	4R23610	**73,40**
NPT 1/8 x 27	30 x 11	4R23612	**79,27**
NPT 1/4 x 18	38 x 14	4R23614	**83,33**
NPT 3/8 x 18	45 x 14	4R23616	**108,06**
NPT 1/2 x 14	45 x 18	4R23618	**108,06**
NPT 5/8 x 14	55 x 22	4R23620	**194,87**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
NPT 3/4 x 14	55 x 22	4R23622	**146,81**
NPT 7/8 x 14	65 x 25	4R23624	**285,25**
NPT 1 x 11.5	65 x 25	4R23626	**201,19**
NPT 1.1/4 x 11.5	75 x 26	4R23634	**278,21**
NPT 1.1/2 x 11.5	90 x 27	4R23642	**408,25**
NPT 2 x 11.5	105 x 28	4R23654	**540,23**

DIN 223 = DIN EN 22568

VG PARA ROSCAS DE VÁLVULAS DE NEUMÁTICO

FOR TIRE VALVES THREADS
POUR LES VALVES DES PNEUMATIQUES



ACERO 400-800 N/mm² | HSS-G | TOL 6g

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
VG 5 X 36	20 x7	4R21501	**262,26**
VG 5,2 X 24	20 x7	4R21502	**280,99**
VG 6 X 32	20 x7	4R21503	**298,98**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
VG 8 X 32	25x9	4R21504	**299,72**
VG 10 X 28	30 x 11	4R21505	**337,19**
VG 12 X 26	30 x 11	4R21506	**412,13**

BSC PARA EJES DE PEDALIER

FOR BOTTOM BRACKET
POUR PÉDALIER VÉLO



ACERO 400-800 N/mm² | HSS-G | TOL 6g

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSC 1/4" X 26	20,6 X 6,35	4R21507	*
BSC 5/16" X 26	25,4 X 9,5	4R21508	*
BSC 3/8" X 26	25,4 X 9,5	4R21509	*

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSC 9/16" X 20 R	38,1 X 12,7	4R21510	*
BSC 9/16" X 20 L	38,1 X 12,7	4R21511	*
BSC 1" X 24	55 X 16	4R21512	*

* Consultar precio y disponibilidad / *Request price and availability / Consulter le prix et le disponibilité*

NPTF ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16

AMERICAN TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16



ACERO 400-800 N/mm² · HSS-G · FORM A

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
NPTF 1/8 x 27	50 x 11	4R98072	**91,49**
NPTF 1/4 x 18	50 x 14	4R98074	**91,49**
NPTF 3/8 x 18	50 x 14	4R98076	**91,49**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
NPTF 1/2 x 14	50 x 18	4R98078	**91,49**
NPTF 3/4 x 14	50 x 22	4R98080	**91,49**
NPTF 1 x 11.5	50 x 25	4R98082	**91,49**

DIN 223 = DIN EN 22568

M MÉTRICA ISO-ROSCA DIN 13

METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 900 - 1100 N/mm² · INOX · HSS-CO 5% · DIN 223 · TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,50	20 x 5	4R57426	**29,10**
M 4 x 0,70	20 x 5	4R57430	**29,10**
M 5 x 0,80	20 x 7	4R57434	**29,10**
M 6 x 1,00	20 x 7	4R57438	**29,10**
M 8 x 1,25	25 x 9	4R57442	**33,30**
M 10 x 1,50	30 x 11	4R57446	**44,52**
M 12 x 1,75	38 x 14	4R57450	**53,09**
M 14 x 2,00	38 x 14	4R57454	**53,09**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 16 x 2,0	45 x 18	4R57458	**93,19**
M 18 x 2,5	45 x 18	4R57462	**93,19**
M 20 x 2,5	45 x 18	4R57466	**93,19**
M 22 x 2,5	55 x 22	4R57470	**146,28**
M 24 x 3,0	55 x 22	4R57474	**146,28**
M 27 x 3,0	65 x 25	4R57476	**213,40**
M 30 x 3,5	65 x 25	4R57478	**213,40**

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 800 -1100 N/mm² · INOX · HSS-CO 5% · DIN 223 · TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 6 x 0,75	20 x 7	4R56418	**37,83**
M 8 x 0,75	25 x 9	4R56424	**31,66**
M 8 x 1,00	25 x 9	4R56426	**31,66**
M 10 x 1,00	30 x 11	4R56436	**43,17**
M 10 x 1,25	30 x 11	4R56438	**43,17**
M 12 x 1,00	38 x 10	4R56444	**52,93**
M 12 x 1,25	38 x 10	4R56446	**52,93**
M 12 x 1,50	38 x 10	4R56448	**52,93**
M 14 x 1,25	38 x 10	4R56454	**52,93**
M 14 x 1,5	38 x 10	4R56456	**52,93**
M 16 x 1,5	45 x 14	4R56466	**77,35**
M 18 x 1,5	45 x 14	4R56472	**77,79**
M 18 x 2,0	45 x 14	4R56474	**80,86**
M 20 x 1,5	45 x 14	4R56484	**77,35**
M 20 x 2,0	45 x 14	4R56486	**89,63**
M 22 x 1,5	55 x 16	4R56494	**149,51**
M 24 x 1,5	55 x 16	4R56604	**149,51**

DIN 223 = DIN EN 22568

G(BSP) ROSCA GAS DIN ISO 228
PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



ACERO 800 -1100 N/mm² · INOX · HSS-CO 5% · DIN 5158

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R55412	**60,59**
G 1/4 x 19	38 x 10	4R55414	**56,56**
G 3/8 x 19	45 x 14	4R55416	**80,77**
G 1/2 x 14	45 x 14	4R55418	**80,77**
G 3/4 x 14	55 x 16	4R55422	**126,27**
G 1 x 11	65 x 18	4R55426	**173,64**

DIN 5158 = DIN EN 24231

MÉTRICA ISO-ROSCA DIN 13 IZQUIERDAS
METRIC ISO THREAD DIN 13 LEFT HAND
MÉTRIQUE DIN-13 Á GAUCHE



ACERO 400-800 N/mm²

HSS-G

DIN 223

TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 2 x 0,40	16 x 5	4R27216	**54,42**
M 3 x 0,50	20 x 5	4R27226	**42,04**
M 4 x 0,70	20 x 5	4R27230	**42,04**
M 5 x 0,80	20 x 7	4R27234	**42,04**
M 6 x 1,00	20 x 7	4R27238	**42,04**
M 8 x 1,25	25 x 9	4R27242	**43,13**
M 10 x 1,50	30 x 11	4R27246	**49,49**
M 12 x 1,75	38 x 14	4R27250	**56,88**
M 14 x 2,00	38 x 14	4R27254	**56,88**
M 16 x 2,00	45 x 18	4R27258	**96,97**
M 18 x 2,50	45 x 18	4R27262	**96,97**
M 20 x 2,50	45 x 18	4R27266	**96,97**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 22 x 2,5	55 x 22	4R27270	**142,81**
M 24 x 3,0	55 x 22	4R27274	**142,81**
M 27 x 3,0	65 x 25	4R27276	**205,79**
M 30 x 3,5	65 x 25	4R27278	**205,79**
M 33 x 3,5	65 x 25	4R27280	**205,79**
M 36 x 4,0	65 x 25	4R27282	**205,79**
M 39 x 4,0	75 x 30	4R27284	**321,52**
M 42 x 4,5	75 x 30	4R27286	**321,52**
M 45 x 4,5	90 x 36	4R27288	**531,76**
M 48 x 5,0	90 x 36	4R27290	**531,76**
M 52 x 5,0	90 x 36	4R27292	**531,76**

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO ROSCA DIN 13 IZQUIERDAS
METRIC FINE ISO THREAD DIN 13 LEFT HAND
MÉTRIQUE FIN ISO DIN-13 Á GAUCHE



ACERO 300-800 N/mm² | HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 6 x 0,75	20 x 7	4R26207	**56,91**
M 8 x 0,75	25 x 9	4R26210	**47,61**
M 8 x 1,00	25 x 9	4R26211	**47,61**
M 10 x 1,00	30 x 11	4R26215	**64,33**
M 10 x 1,25	30 x 11	4R26216	**64,33**
M 12 x 1,00	38 x 10	4R26220	**81,77**
M 12 x 1,25	38 x 10	4R26221	**81,77**
M 12 x 1,50	38 x 10	4R26222	**81,77**
M 14 x 1,25	38 x 10	4R26227	**81,77**
M 14 x 1,5	38 x 10	4R26228	**81,77**
M 16 x 1,0	45 x 14	4R26231	**101,30**
M 16 x 1,5	45 x 14	4R26233	**101,30**
M 18 x 1,5	45 x 14	4R26236	**101,30**
M 20 x 1,5	45 x 14	4R26240	**101,30**
M 22 x 1,5	55 x 16	4R26245	**173,14**
M 24 x 1,5	55 x 16	4R26250	**173,14**
M 24 x 2,0	55 x 16	4R26251	**173,14**
M 30 x 2,0	65 x 18	4R26264	**247,33**

DIN 223 = DIN EN 22568

BSW ROSCA WITHWORTH BS 84 IZQUIERDAS

WITHWORTH THREAD BS 84 LEFT HAND
FILETAGE WHITWORTH BS 84 A GAUCHE



ACERO 400-800 N/mm²

HSS-G

DIN 223

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
1/8 x 40	20 x 5	4R22206	61,84
5/32 x 32	20 x 5	4R22208	61,84
3/16 x 24	20 x 7	4R22210	61,84
1/4 x 20	20 x 7	4R22214	61,84
5/16 x 18	25 x 9	4R22216	61,84
3/8 x 16	30 x 11	4R22218	61,84
7/16 x 14	30 x 11	4R22220	61,84

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
1/2 x 12	38 x 14	4R22222	75,55
9/16 x 12	38 x 14	4R22224	86,56
5/8 x 11	45 x18	4R22226	98,94
3/4 x 10	45 x 18	4R22230	98,94
7/8 x 9	55 x 22	4R22234	151,09
1 x 8	55 x 22	4R22238	151,09

DIN 223 = DIN EN 22568

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1. IZQUIERDAS

UNIFIED COARSE THREAD, ANSI B.1.1 LEFT HAND
FILETAGE UNIFIED GROSSE ANSI B 1.1 A GAUCHE



ACERO 400-800 N/mm²

HSS-G

DIN 223

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNC Nr. 6 x 32	20 x 7	4R23206	61,54
UNC Nr. 8 x 32	20 x 7	4R23208	61,54
UNC Nr.10 x 32	20 x 7	4R23210	61,54
UNC 1/4 x 20	20 x 7	4R23214	61,54
UNC 5/16 x 18	25 x 9	4R23216	61,54
UNC 3/8 x 16	30 x 11	4R23218	61,54
UNC 7/16 x 14	38 x 14	4R23220	74,90

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNC 1/2 x 13	38 x 14	4R23222	74,90
UNC 9/16 x 12	38 x 14	4R23224	90,95
UNC 5/8 x 11	45 x 18	4R23226	120,37
UNC 3/4 x 10	45 x 18	4R23230	120,37
UNC 7/8 x 9	55 x 22	4R23234	173,89
UNC 1 x 8	55 x 22	4R23238	173,89

DIN 223 = DIN EN 22568

UNF ROSCA FINA UNIFICADA ANSI B.1.1 IZQUIERDAS

UNIFIED FINE THREAD, ANSI B.1.1 LEFT HAND
FILETAGE UNIFIED GROSSE ANSI B 1.1 A GAUCHE



HSS-G | DIN 223

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNF Nr. 10 x 32	20 x 7	4R24210	61,54
UNF 1/4 x 28	20 x 7	4R24214	61,54
UNF 5/16 x 24	25 x 9	4R24216	61,54
UNF 3/8 x 24	30 x 11	4R24218	61,54
UNF 7/16 x 20	30 x 11	4R24220	66,87
UNF 1/2 x 20	38 x 10	4R24222	80,25

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNF 9/16 x 18	38 x 10	4R24224	93,64
UNF 5/8 x 18	45 x 14	4R24226	120,37
UNF 3/4 x 16	45 x 14	4R24230	120,37
UNF 7/8 x 14	55 x 16	4R24234	160,52
UNF 1 x 12	55 x 16	4R24238	160,52

DIN 223 = DIN EN 22568

G(BSP) ROSCA GAS DIN ISO 228 IZQUIERDAS

PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228 A GAUCHE



HSS-G | DIN 5158

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R25212	80,26
G 1/4 x 19	38 x 10	4R25214	92,21
G 3/8 x 19	45 x 14	4R25216	107,01
G 1/2 x 14	45 x 14	4R25218	107,01
G 5/8 x 14	55 x 16	4R25220	160,51
G 3/4 x 14	55 x 16	4R25222	165,86
G 7/8 x 14	65 x 18	4R25224	241,33
G 1 x 11	65 x 18	4R25226	241,33

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1.1/8 x 11	75 x 20	4R25230	329,57
G 1.1/4 x 11	75 x 20	4R25234	329,57
G 1.3/8 x 11	90 x 22	4R25238	509,36
G 1.1/2 x 11	90 x 22	4R25242	509,36
G 1.5/8 x 11	90 x 22	4R25246	509,36
G 1.3/4 x 11	105 x 22	4R25250	771,36
G 2 x 11	105 x 22	4R25254	799,86

DIN 5158 = DIN EN 24231

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm²

HSS-G

DIN 382

TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3,0 x 0,50	19 x 5	4R27126	**27,41**
M 3,5 x 0,60	19 x 5	4R27128	**27,41**
M 4,0 x 0,70	19 x 5	4R27130	**27,41**
M 5,0 x 0,80	19 x 7	4R27134	**27,41**
M 6,0 x 1,00	19 x 7	4R27138	**27,41**
M 7,0 x 1,00	22 x 9	4R27140	**29,42**
M 8,0 x 1,25	22 x 9	4R27142	**29,42**
M 9,0 x 1,25	22 x 9	4R27144	**29,42**
M 10,0 x 1,50	27 x 11	4R27146	**35,10**
M 11,0 x 1,50	27 x 11	4R27148	**35,10**
M 12,0 x 1,75	36 x 14	4R27150	**48,49**
M 14,0 x 2,00	36 x 14	4R27154	**48,49**
M 16,0 x 2,00	41 x 18	4R27158	**68,54**
M 18,0 x 2,50	41 x 18	4R27162	**68,54**
M 20,0 x 2,50	41 x 18	4R27166	**68,54**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 22 x 2,5	50 x 22	4R27170	**114,81**
M 24 x 3,0	50 x 22	4R27174	**134,76**
M 27 x 3,0	60 x 25	4R27176	**210,41**
M 30 x 3,5	60 x 25	4R27178	**210,41**
M 33 x 3,5	60 x 25	4R27180	**210,41**
M 36 x 4,0	60 x 25	4R27182	**210,41**
M 39 x 4,0	70 x 30	4R27184	**343,72**
M 42 x 4,5	70 x 30	4R27186	**343,72**
M 45 x 4,5	85 x 36	4R27188	**484,06**
M 48 x 5,0	85 x 36	4R27190	**484,06**
M 52 x 5,0	85 x 36	4R27192	**484,06**
M 56 x 5,5	100 x 36	4R27194	**847,14**
M 60 x 5,5	100 x 36	4R27196	**847,14**
M 64 x 6,0	100 x 36	4R27198	**847,14**
M 68 x 6,0	115 x 36	4R27199	**1.098,74**

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 400-800 N/mm² | HSS-G | DIN 382 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,35	19 x 5	4R26108	52,83
M 4 x 0,35	19 x 5	4R26110	52,83
M 4 x 0,50	19 x 5	4R26112	52,83
M 5 x 0,50	19 x 5	4R26114	52,83
M 5 x 0,75	19 x 7	4R26116	52,83
M 6 x 0,50	19 x 5	4R26117	52,83
M 6 x 0,75	19 x 7	4R26118	52,83
M 7 x 0,75	22 x 9	4R26120	56,17
M 8 x 0,50	22 x 9	4R26122	56,17
M 8 x 0,75	22 x 9	4R26124	56,17
M 8 x 1,00	22 x 9	4R26126	56,17
M 9 x 0,75	22 x 9	4R26128	56,17
M 9 x 1,00	22 x 9	4R26130	56,17
M 10 x 0,75	27 x 11	4R26132	56,17
M 10 x 1,00	27 x 11	4R26136	56,17
M 10 x 1,25	27 x 11	4R26138	56,17
M 11 x 1,00	27 x 11	4R26140	77,57
M 11 x 1,25	27 x 11	4R26142	77,57
M 12 x 0,75	36 x 10	4R26143	77,57
M 12 x 1,00	36 x 10	4R26144	77,57
M 12 x 1,25	36 x 10	4R26146	77,57
M 12 x 1,50	36 x 10	4R26148	77,57
M 13 x 1,00	36 x 10	4R26150	87,95
M 13 x 1,50	36 x 10	4R26151	87,95
M 14 x 0,75	36 x 10	4R26152	87,95
M 14 x 1,00	36 x 10	4R26153	87,95
M 14 x 1,25	36 x 10	4R26154	87,95
M 14 x 1,50	36 x 10	4R26156	87,95
M 15 x 1,00	36 x 10	4R26158	105,65
M 15 x 1,50	36 x 10	4R26160	105,65
M 16 x 1,00	41 x 14	4R26162	108,20
M 16 x 1,25	41 x 14	4R26164	108,20
M 16 x 1,50	41 x 14	4R26166	108,20
M 18 x 1,00	41 x 14	4R26170	114,68
M 18 x 1,25	41 x 14	4R26171	114,68
M 18 x 1,50	41 x 14	4R26172	114,68
M 18 x 2,00	41 x 14	4R26174	114,68
M 20 x 1,00	41 x 14	4R26178	114,68
M 20 x 1,25	41 x 14	4R26180	114,68
M 20 x 1,50	41 x 14	4R26184	114,68
M 20 x 2,00	41 x 14	4R26186	114,68
M 21 x 1,50	41 x 14	4R26188	166,53
M 22 x 1,00	50 x 16	4R26190	166,53
M 22 x 1,25	50 x 16	4R26192	166,53
M 22 x 1,50	50 x 16	4R26194	166,53
M 22 x 2,00	50 x 16	4R26196	166,53
M 23 x 1,50	50 x 16	4R26198	166,53
M 24 x 1,00	50 x 16	4R26700	165,42
M 24 x 1,25	50 x 16	4R26702	165,42
M 24 x 1,50	50 x 16	4R26704	165,42
M 24 x 2,00	50 x 16	4R26706	165,42

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 25 x 1,0	50 x 16	4R26707	239,04
M 25 x 1,5	50 x 16	4R26708	239,04
M 26 x 1,0	50 x 16	4R26710	239,04
M 26 x 1,5	50 x 16	4R26712	239,04
M 26 x 2,0	50 x 16	4R26714	239,04
M 27 x 1,0	60 x 18	4R26717	248,58
M 27 x 1,5	60 x 18	4R26716	248,58
M 27 x 2,0	60 x 18	4R26718	248,58
M 28 x 1,0	60 x 18	4R26720	248,58
M 28 x 1,5	60 x 18	4R26722	248,58
M 28 x 2,0	60 x 18	4R26724	248,58
M 29 x 1,5	60 x 18	4R26726	248,58
M 30 x 1,0	60 x 18	4R26728	248,58
M 30 x 1,5	60 x 18	4R26730	248,58
M 30 x 2,0	60 x 18	4R26732	248,58
M 30 x 3,0	60 x 25	4R26734	248,58
M 32 x 1,5	60 x 18	4R26736	248,58
M 32 x 2,0	60 x 18	4R26735	248,58
M 32 x 3,0	60 x 25	4R26737	248,58
M 33 x 1,5	60 x 18	4R26738	248,58
M 33 x 2,0	60 x 18	4R26740	248,58
M 33 x 3,0	60 x 25	4R26742	248,58
M 34 x 1,5	60 x 18	4R26744	248,58
M 34 x 2,0	60 x 18	4R26746	248,58
M 35 x 1,5	60 x 18	4R26748	248,58
M 36 x 1,5	60 x 18	4R26750	248,58
M 36 x 2,0	60 x 18	4R26752	248,58
M 36 x 3,0	60 x 25	4R26754	248,58
M 38 x 1,5	70 x 20	4R26756	413,80
M 39 x 1,5	70 x 20	4R26758	413,80
M 39 x 2,0	70 x 20	4R26760	413,80
M 39 x 3,0	70 x 30	4R26762	413,80
M 40 x 1,5	70 x 20	4R26764	413,80
M 40 x 2,0	70 x 20	4R26766	413,80
M 40 x 3,0	70 x 30	4R26768	413,80
M 42 x 1,5	70 x 20	4R26770	413,80
M 42 x 2,0	70 x 20	4R26772	413,80
M 42 x 3,0	70 x 30	4R26774	413,80
M 45 x 1,5	85 x 22	4R26776	604,90
M 45 x 2,0	85 x 22	4R26778	604,90
M 45 x 3,0	85 x 36	4R26780	604,90
M 48 x 1,5	85 x 22	4R26782	604,90
M 48 x 2,0	85 x 22	4R26784	604,90
M 48 x 3,0	85 x 36	4R26786	604,90
M 50 x 1,5	85 x 22	4R26788	604,90
M 50 x 2,0	85 x 22	4R26790	604,90
M 50 x 3,0	85 x 36	4R26792	604,90
M 52 x 1,5	85 x 22	4R26794	604,90
M 52 x 2,0	85 x 22	4R26796	604,90
M 52 x 3,0	85 x 36	4R26798	604,90

BSW ROSCA WITHWORTH BS 84

WITHWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84



ACERO 400-800 N/mm²

HSS-G | DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSW 1/8 x 40	19 x 5	4R22106	35,10
BSW 3/16 x 24	19 x 7	4R22110	35,10
BSW 1/4 x 20	19 x 7	4R22114	35,10
BSW 5/16 x 18	22 x 9	4R22116	36,78
BSW 3/8 x 16	27 x 11	4R22118	43,62
BSW 7/16 x 14	27 x 11	4R22120	43,62
BSW 1/2 x 12	36 x 14	4R22122	52,83
BSW 9/16 x 12	36 x 14	4R22124	52,83
BSW 5/8 x 11	41 x 18	4R22126	73,55
BSW 3/4 x 10	41 x 18	4R22130	73,55
BSW 7/8 x 9	50 x 22	4R22134	149,68

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSW 1" x 8	50 x 22	4R22138	149,68
BSW 1.1/8 x 7	60 x 25	4R22142	229,30
BSW 1.1/4 x 7	60 x 25	4R22146	229,30
BSW 1.3/8 x 6	60 x 25	4R22150	229,30
BSW 1.1/2 x 6	70 x 30	4R22154	270,53
BSW 2 x 4.1/2	85 x 36	4R22170	334,40
BSW 2.1/4 x 4	100 x 22	4R22172	1.243,41
BSW 2.1/2 x 4	115 x 22	4R22174	1.243,41
BSW 2.3/4 x 3.1/2	115 x 36	4R22176	1.546,28
BSW 3 x 3.1/2	115 x 36	4R22178	1.546,28

BSF ROSCA BRITÁNICA STANDARD FINA BS 84

BRITISH STANDARD FINE THREAD BS 84
FILETAGE BRITANIQUE BSF, BS 84



ACERO 400-800 N/mm²

HSS-G | DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSF 3/16 x 32	19 x 7	4R22510	39,25
BSF 1/4 x 26	19 x 7	4R22514	39,25
BSF 5/16 x 22	22 x 9	4R22516	43,50
BSF 3/8 x 20	27 x 11	4R22518	53,17
BSF 7/16 x 18	27 x 11	4R22520	53,17
BSF 1/2 x 16	36 x 10	4R22522	83,39

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSF 9/16 x 16	36 x 10	4R22524	83,39
BSF 5/8 x 14	41 x 14	4R22526	127,38
BSF 3/4 x 12	41 x 14	4R22530	127,38
BSF 7/8 x 11	50 x 16	4R22534	149,68
BSF 1 x 10	50 x 16	4R22538	149,68

G(BSP) ROSCA GAS DIN ISO 228

PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228



ACERO 400-800 N/mm²

HSS-G **DIN 382**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1/8 x 28	27 x 11	4R25512	**49,16**
G 1/4 x 19	36 x 10	4R25514	**65,66**
G 3/8 x 19	41 x 14	4R25516	**84,58**
G 1/2 x 14	41 x 14	4R25518	**84,58**
G 5/8 x 14	50 x 16	4R25520	**143,22**
G 3/4 x 14	50 x 16	4R25522	**143,22**
G 7/8 x 14	60 x 18	4R25524	**190,96**
G 1 x11	60 x 18	4R25526	**190,96**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1.1/8 x 11	70 x 20	4R25530	**283,28**
G 1.1/4 x 11	70 x 20	4R25534	**283,28**
G 1.3/8 x 11	85 x 22	4R25538	**466,02**
G 1.1/2 x 11	85 x 22	4R25542	**466,02**
G 1.5/8 x 11	85 x 22	4R25546	**466,02**
G 1.3/4 x 11	100 x 22	4R25550	**700,20**
G 2 x 11	100 x 22	4R25554	**700,20**

ESTUCHE MACHOS MANO
HAND TAPS SET • COFFRET TARAUDS Á MAIN



3RH352 - 3RC352



3RB352 - 3RB529

Calidad / *Quality*		Machos / *Taps*	Brocas / *Drill Bits*	Giramachos / *Tap Wrenche*	Cod.	€/Unid.
HSS-G	Machos Mano *Hand Taps*	M 3 - 4 - 5 - 6 - 8 - 10 - 12	-	-	3RH352	**124,45**
HSS-CO 5%	Machos Mano *Hand Taps*	M 3 - 4 - 5 - 6 - 8 - 10 - 12	-	-	3RC352	**210,69**
HSS-G	Macho Nº 3 *Tap Nº 3*	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1.1/2	3RB352	**82,60**
HSS-CO 5%	DIN 352/B	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1.1/2	3RB529	**97,33**

ESTUCHES MACHOS MÁQUINA
MACHINE TAPS SETS • COFFRETS TARAUDS MACHINE



3RM001



3RM002



3RM003



3RM004

Calidad / *Quality*		Machos / *Taps*	Cod.	€/Unid.
HSS-CO 5%	FORM B	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM001	**122,34**
HSS-CO 5%	FORM C/35º	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM002	**135,26**

Calidad / *Quality*		Machos / *Taps*	Cod.	€/Unid.
TIN	FORM B	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM003	**205,95**
TIN	FORM C/35º	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM004	**266,41**

ESTUCHES MACHOS MÁQUINA CON BROCA
MACHINE TAPS AND DRILL BITS SETS
COFFRETS TARAUDS MACHINE ET FORETS MÉTAUX



3RM011



3RM012

Calidad / *Quality*	Machos / *Taps*	Brocas / *Drill Bits*	Giramachos / *Tap Wrenche*	Cod.	€/Unid.
HSS-CO 5% FORM B	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	-	3RM011	**134,37**
HSS-CO 5% FORM C/35°	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	-	3RM012	**161,60**

ESTUCHES MACHOS MÁQUINA DE BANDA
COLORED RING MACHINE TAPS SETS
COFFRETS TARAUDS MACHINE BANDE COLORÉE



3RM021



3RM022



3RM023



3RM024



3RM025



3RM026

Calidad / *Quality*	Banda/*Ring*	Machos/*Taps*	Cod.	€/Unid.
PM HL FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM021	**259,54**
PM HL FORM C/35°		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM022	**293,16**
HSS-E-V3 TIN FORM B	MULTIUSOS	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM023	**175,84**

Calidad / *Quality*	Banda/*Ring*	Machos/*Taps*	Cod.	€/Unid.
HSS-E-V3 TIN FORM C/35°	MULTIUSOS	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM024	**192,93**
HSS-CO 5% FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM025	**159,15**
HSS-CO 5% FORM C/40°		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM026	**194,55**

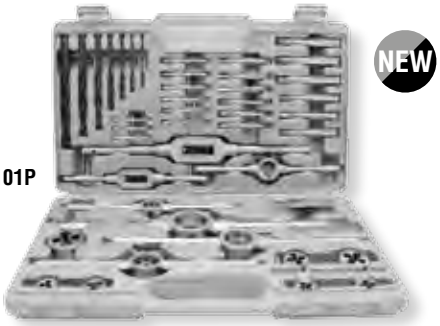
MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12 14 - 16 - 18 - 20 - 22 - 24	Nº 1 + 4	20 x 5 - 20 x 7 - 25 x 9 - 30 x 11 38 x 14 - 45 x 18 - 55 x 22	-	3R48006	**1.318,84**
M 5 - 6 - 8 - 10 - 12 - 14 - 16 18 - 20 - 22 - 24 - 27 - 30	Nº 1 + Nº 3 + 5	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22 - 65 x 25	-	3R48007	**2.177,88**

3R49101P



NEW



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	N.° 1	3R49101	**336,96**
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	N.° 1	3R49101P	**309,15**
M 3-4-5-6-8-10-12	-	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49107	**305,73**
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49111	**325,65**

HSS-CO 5%

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	2,5 - 3,3 - 4,2 - 5,0 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14	Nº 1	3R49151	**527,20**

HSS-G LH IZQUIERDAS

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	2,5 - 3,3 - 4,2 - 5,0 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14	Nº 1	3R49171	**600,60**

M CONJUNTO M3 – M12, Ref. 3R12
M3 – M12 SET, REF. 3R12
COFFRET M3 – M12, REF. 3R12



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	Nº 1	25 x 9	Nº 1	3R49501	**208,82**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	Nº 1 - Nº 2	3R49201	**703,73**
M 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	Nº 1 + Nº 2	3R49301	**681,85**

HSS-CO 5%

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	-	3R49251	**1.138,68**

HSS-G LH IZQUIERDAS

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	-	3R49271	**1.546,98**

M MÉTRICA ISO-529 FORMA B
METRIC ISO-529 B FORM
MÉTRIQUE ISO-529 FORME B



HSS-G

Machos Mano y Cojinetes / *Hand Taps and Dies*	**Brocas** / *Drill Bits* **(mm)**	**Cod.**	**€/Unid.**
M 3 - 4 - 5 - 6 - 8 - 10	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5	3R80501	**153,70**

Mf MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	**Giramachos** *Tap Holder*	**Volvedor** *Tap Wrenche* **(mm)**	**Giramachos con Criquet** *Tap Holder with Ratchet*	**Cod.**	**€/Unid.**
Mf 3 x 0,35 - 4 x 0,5 - 5 x 0,5 - 6 x 0,75 8 x 0,75 - 8 x 1,0 - 10 x 1,0 - 12 x 1,5	Nº 1 + Nº 2	20 x 5 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48010	**607,74**
Mf 6 x 0,75 - 8 x 0,75 - 8 x 1,0 - 10 x 1,0 12 x 1,0 - 12 x 1,5 - 14 x 1,25 - 14 x 1,5 16 x 1,5 - 18 x 1,5 - 20 x 1,5	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14	-	3R48011	**1.026,02**
Mf 6 x 0,75 - 8 x 0,75 - 8 x 1,0 - 10 x 1,0 12 x 1,0 - 12 x 1,5 - 14 x 1,25 - 14 x 1,5 16 x 1,5 - 18 x 1,5 - 20 x 1,5 - 22 x 1,5 - 24 x 1,5	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14 - 55 x 16	-	3R48012	**1.389,48**

G(BSP) ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
G 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1"	Nº 1 + Nº 3 + Nº 5	30 x 11 - 38 x 10 - 45 x 14 - 55 x 16 - 65 x 18	-	3R48020	**1.122,50**
G 1/8 - 1/4 - 3/8 - 1/2 - 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 3 + Nº 5	31 x 11 - 38 x 10 - 45 x 14 - 55 x 16 - 65 x 18	-	3R48021	**1.513,19**
G 1/4 - 3/8 - 1/2 - 3/4 - 1" - 1 1/4 - 1 1/2	Nº 2 + Nº 4 + Nº 7	38 x 10 - 45 x 14 - 65 x 18 - 75 x 20 - 90 x 22	-	3R48022	**2.995,80**

NPT ROSCA INGLESA PARA TUBO, CONOCIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
NPT 1/8 - 1/4 - 3/8 - 1/2 -3/4 - 1"	Nº 1 + Nº 3 + Nº 5	31 x 11 - 38 x 14 - 45 x 18 55 x 22 - 65 x 25	-	3R48025	**1.502,04**
NPT 1/8 - 1/4 - 3/8 - 1/2 -3/4 - 1" 1 1/4 - 1 1/2 - 2"	Nº 2 + Nº 4 + Nº 7	30 x 11 - 38 x 14 - 45 x 18 - 55 x 22 65 x 25 - 75 x 30 - 90 x 36 - 105 x 36	-	3R48027	**4.978,36**

BSW ROSCA WHITWORTH BS 84
WITHWORTH THREAD BS 84
WHITWORTH BS 84



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
BSW 1/8 - 3/16 - 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48030	**617,25**
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48031	**505,36**
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48032	**913,24**
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22	-	3R48034	**1.331,98**
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 3/4 - 7/8 - 1" - 1" 1/8 - 1" 1/4 - 1" 3/8 - 1" 1/2	Nº 1 + Nº 3 + Nº 5	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22 - 65 x 25	-	3R48035	**3.182,56**

BSF ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
BRITISH STANDARD FINE THREAD BS 84

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48041	**523,81**
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	21 x 7 - 25 x 9 - 30 x 11 - 38 x 10 - 45 x 14	-	3R48042	**906,90**
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	22 x 7 - 25 x 9 - 30 x 11 - 38 x 10 - 45 x 14 - 55 x 16	-	3R48044	**1.498,84**

BSW/BSF

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
BSW/BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48046	**1.696,46**

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1

UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	**Giramachos** *Tap Holder*	**Volvedor** *Tap Wrenche* **(mm)**	**Giramachos con Criquet** *Tap Holder with Ratchet*	**Cod.**	**€/Unid.**
UNC 1/4 - 5/16 - 3/8 - 7/16 -1/2	Nº 1 + Nº 2	20 x 70 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48050	**553,23**
UNC 1/4 - 5/16 - 3/8 - 7/16 -1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 70 - 25 x 9 - 30 x 11 38 x 14 - 45 x 18	-	3R48051	**969,44**

UNF ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	**Giramachos** *Tap Holder*	**Volvedor** *Tap Wrenche* **(mm)**	**Giramachos con Criquet** *Tap Holder with Ratchet*	**Cod.**	**€/Unid.**
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48060	**468,58**
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14	-	3R48061	**816,35**
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14 - 55 x 16	-	3R48063	**1.164,98**

UNC/UNF

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	**Giramachos** *Tap Holder*	**Volvedor** *Tap Wrenche* **(mm)**	**Giramachos con Criquet** *Tap Holder with Ratchet*	**Cod.**	**€/Unid.**
UNC/UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48066	**1.696,45**

M/Mf MALETIN AUTOMOCION REF.6000

THREADING SET REF.6000 FOR AUTOMOTIVE
ENSAMBLE FILETTAGE POUR GARAGE REF.6000



Basic

Cod.	€/Unid.
6000FIAT	**477,97**

Contenido / *Contains* / *Contenu*

Machos Mano -2 machos- y Cojinetes / *Hand Taps -2 taps- and Dies*							
METRICA DIN352 / *METRIC DIN352*			**METRICA FINA DIN2181** / *FINE METRIC DIN2181*				
2 x 0,40	7 x 1,00	12 x 1,75	6 x 0,75	9 x 1,00	11 x 1,00	12 x 1,50	16 x 1,50
3 x 0,50	8 x 1,25	14 x 2,00	7 x 0,75	10 x 0,75	11 x 1,25	14 x 1,00	18 x 1,50
4 x 0,70	9 x 1,25	16 x 2,00	8 x 0,75	10 x 1,00	12 x 0,75	14 x 1,25	
5 x 0,80	10 x 1,50		8 x 1,00	10 x 1,25	12 x 1,00	14 x 1,50	
6 x 1,00	11 x 1,50		9 x 0,75	11 x 0,75	12 x 1,25	16 x 1,00	
Volvedor / *Tap Wrenche* **(mm)**							
25,4 - 38,1							
Giramachos / *Tap Holder*							
Nº 1 + Nº 3 + Nº 1 con crique / *Nº 1 + Nº 3 + Nº 1 with ratchet*							
TOTAL 110 pcs							

M

Basic

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 7 - 8	Nº 2	25,4	600000M3	**189,10**
M 3 - 4 - 5 - 6 - 7 - 8 -9 -10	Nº 2	25,4	600000M4	**233,06**
M 12 - 14 - 16 - 18 - 20	Nº 3	38,1 - 50,8	600000M7	**294,30**
M 12 - 14 - 18 - 20 - 22 - 24	Nº 4	38,1 - 50,8	600000M8	**470,95**
M 6 - 8 - 10 - 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	25,4 - 38,1 - 50,8	60000S35	**404,89**

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

BSW

Basic



Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Cod.	€/Unid.
BSW 1/2"x12 - 9/16"x12 - 5/8"x11 3/4"x10 - 7/8"x9 - 1"x8	Nº 4	38,1 - 50,8	600000W8	**460,29**
BSW 1/8"x40 - 3/16"x24 1/4"x20 - 5/16"x18 - 3/8"x16	Nº 2	25,4	600000W4	**211,42**
BSW 1/4"x20 - 5/16"x18 - 3/8"x16 - 7/16"x14 1/2"x12 - 9/16"x12 - 5/8"x11	Nº 3	25,4 - 38,1	600000W7	**298,02**
BSW 1/4"x20 - 5/16"x18 - 3/8"x16 - 7/16"x14 1/2"x12 - 9/16"x12 - 5/8"x11 - 3/4"x10	Nº 2 + Nº 4	25,4 - 38,1	600000W9	**364,04**
BSW 1/4"x20 - 5/16"x18 - 3/8"x16 - 7/16"x14 1/2"x12 - 9/16"x12 - 5/8"x11 - 3/4"x10 - 7/8"x9 - 1"x8	Nº 2 + Nº 4	25,4 - 38,1 - 50,8	600000W1	**600,98**
BSW 1/8"x40 - 5/32"x32 - 3/16x24 - 1/4"x20 - 5/16"x18 - 3/8"x16 - 7/16"x14 - 1/2"x12	Nº 1 + Nº 2	25,4 - 38,1	60000S20	**360,47**

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

G(BSP)

Basic

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Cod.	€/Unid.
BSP 1/8"x28 - 1/4"x19 - 3/8"x19 - 1/2"x14 5/8"x14 - 3/4"x14 - 7/8"x14 - 1"x11	Nº 3 + Nº 6	38,1 - 50,8 - 63,5 mm.	6000GAS1	**765,64**

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

UNF

Basic

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Cod.	€/Unid.
UNF 3/16"x32 - 1/4"x28 - 5/16"x24 3/8"x24 - 7/16"x20	Nº 2	25,4 - 38,1 mm.	6000SAE1	**158,38**
UNF 1/2"x20 - 5/8"x18 - 3/4"x16 7/8"x14 - 1"x12	Nº 4	38,1 - 50,8	6000SAE2	**379,14**

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*







SESACOIL®

MODO DE USO
OPERATINSG INSTRUCTIONS • INSTRUSCTIONS D´UTILISATION



TALADRADO
DRILLING
PÉRÇAGE



COMPROBACIÓN
CHECK
VÉRIFICATION



ROSCADO
THREADING
TARAUDAGE



INSTALACIÓN DEL INSERTO
INSERT INSTALLATION
INSTALLATION DU FILET



ELIMINACIÓN DEL ARRASTRE
TANG REMOVAL
CASSER LA LANGUETTE DE MONTAGE

INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140
TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

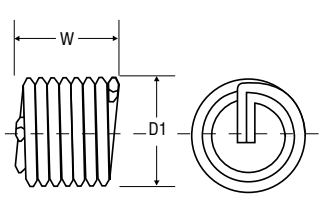
	TALADRADO / *DRILLING* / *PREÇAGE*						ROSCADO / *THREADING* / *FILETAGE*		
D Ø X P (mm)	C	LONGITUD (S) / *LENGTH (S)* / *LONGEUR (S)*					B	A	
M / MF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
M 2,0 x 0,40	2,10	3,80	4,80	5,80	6,80	7,80	2,52	2,09	2,18
M 2,5 x 0,45	2,60	4,53	5,77	7,02	8,27	9,52	3,08	2,60	2,70
M 3,0 x 0,50	3,20	5,25	6,75	8,25	9,75	11,25	3,65	3,11	3,22
M 3,5 x 0,60	3,70	6,20	7,95	9,70	11,45	13,20	4,28	3,63	3,76
M 4,0 x 0,70	4,20	7,15	9,15	11,15	13,15	15,15	4,91	4,15	4,29
M 5,0 x 0,80	5,20	8,60	11,10	13,60	16,10	18,60	6,04	5,17	5,33
M 6,0 x 1,00	6,30	10,50	13,50	16,50	19,50	22,50	7,30	6,22	6,41
M 7,0 x 1,00	7,30	11,50	15,00	18,50	22,00	25,52	8,30	7,22	7,41
M 8,0 x 1,25	8,30	13,63	17,62	21,62	25,62	29,62	9,62	8,27	8,48
M 8,0 x 1,00	8,30	12,50	16,50	20,50	24,50	28,50	9,30	8,22	8,41
M 9,0 x 1,25	9,30	14,63	19,12	23,62	28,13	32,62	10,62	9,27	9,48
M 10,0 x 1,50	10,40	13,50	21,75	26,75	31,75	36,75	11,95	10,32	10,56
M 10,0 x 1,25	10,30	15,63	20,62	25,62	30,62	35,62	11,62	10,27	10,48
M 10,0 x 1,00	10,30	14,50	19,50	24,50	29,50	34,50	11,30	10,22	10,41
M 11,0 x 1,50	11,40	17,75	23,25	28,75	34,25	39,75	12,95	11,33	11,56
M 12,0 x 1,75	12,40	19,87	25,87	31,87	37,87	43,87	14,27	12,38	12,64
M 12,0 x 1,50	12,40	18,75	24,75	30,75	36,75	42,75	14,10	12,32	12,56
M 12,0 x 1,25	12,30	17,62	23,62	29,62	35,62	41,62	13,62	12,27	12,48
M 12,0 x 1,00	12,30	16,50	22,50	28,50	34,50	40,50	13,30	12,22	12,41
M 14,0 x 2,00	14,50	23,00	30,00	37,00	44,00	51,00	16,60	14,43	14,73
M 14,0 x 1,50	14,40	20,75	27,75	34,75	41,75	48,75	15,95	14,35	14,56
M 14,0 x 1,25	14,40	19,62	26,62	33,62	40,62	47,62	15,62	14,27	14,48
M 14,0 x 1,00	14,30	18,50	25,50	32,50	39,50	46,50	15,30	14,22	14,41
M 16,0 x 2,00	16,50	25,00	33,00	41,00	49,00	57,00	18,60	16,43	16,73
M 16,0 x 1,50	16,40	22,75	30,75	38,75	46,75	54,75	17,95	16,32	16,56
M 18,0 x 2,50	18,60	29,25	38,25	47,25	56,25	65,25	21,25	18,54	18,90
M 18,0 x 2,00	18,50	27,00	36,00	45,00	54,00	63,00	20,60	18,43	18,73
M 18,0 x 1,50	18,50	24,75	33,75	42,75	51,75	60,75	19,95	18,32	18,56
M 20,0 x 2,50	20,60	31,25	41,25	51,25	61,25	71,25	23,25	20,54	20,90
M 20,0 x 2,00	20,50	29,00	39,00	49,00	59,00	69,00	22,60	20,43	20,73
M 20,0 x 1,50	20,50	26,75	36,75	46,75	56,75	66,75	21,95	20,32	20,56
M 22,0 x 2,50	22,60	33,25	44,25	55,25	66,25	77,25	25,25	22,54	22,90
M 22,0 x 2,00	22,50	31,00	42,00	53,00	64,00	75,00	24,60	22,43	22,73
M 22,0 x 1,50	22,50	28,75	39,75	50,75	61,75	72,75	23,95	22,32	22,56
M 24,0 x 3,00	24,75	37,50	49,50	61,50	73,50	85,50	27,90	24,65	25,05
M 24,0 x 2,00	24,50	33,00	45,00	57,00	69,00	81,00	26,60	24,43	24,73
M 24,0 x 1,50	24,50	30,75	42,75	54,75	66,75	78,75	26,02	24,33	24,56

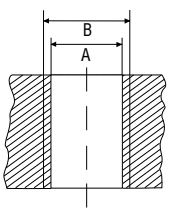
C Diámetro de broca previa / *Recommended drill diameter* / *Perçage avant trou*
S Longitud de taladrado / *Drilling Length* / *Longueur perçage*
B Ø mayor de rosca / *Maximum diameter of thread* / *Diametre maximum du filet*
A Ø menor de rosca / *Minimum diameter of thread* / *Diametre minimum du filet*
Q Longitud nominal / *Nominal Length* / *Longeur nominale*
d1 exterior del casquillo / *External Ø of wire insert* / *Diametre extérieur di filet rapporté*
W N° de hilos / *N° of coils* / *Nombre de spires*

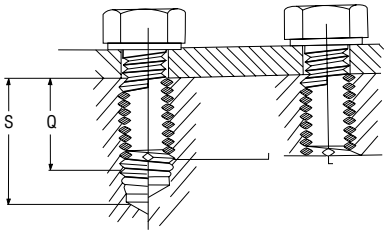
INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

WIRE THREAD INSERTS TECHNICAL INFORMATION • INFORMATION TÉCHNIQUE FILETS RAPPORTÉS

ROSCADO / *THREADING* / *FILETAGE*					NSERTO / *INSERTS* / *FILETS RAPPORTÉS*						
LONGITUD ÚTIL (Q) / *LENGTH (Q)* / *LONGEUR (Q)*					D1		Nº DE HILOS (W) / *Nº OF COILS (W)* / *LONGEUR (W)*				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,00	3,00	4,00	5,00	6,00	2,60	2,80	2,90	4,90	6,90	8,90	10,90
2,50	3,75	5,00	6,25	7,50	3,20	3,70	3,50	5,90	8,10	10,50	12,90
3,00	4,50	6,00	7,50	9,00	3,80	4,35	3,90	6,30	8,70	11,10	13,50
3,50	5,25	7,00	8,75	10,50	4,55	4,75	3,70	6,30	8,70	11,20	13,30
4,00	6,00	8,00	10,00	12,00	5,05	5,60	3,70	6,10	8,40	10,90	13,20
5,00	7,50	10,00	12,50	15,00	6,25	6,80	4,30	6,90	9,70	12,30	14,80
6,00	9,00	12,00	15,00	18,00	7,40	7,95	4,20	6,90	9,60	12,30	14,60
7,00	10,50	14,00	17,50	21,00	8,65	9,20	5,30	8,20	11,10	14,30	17,40
8,00	12,00	16,00	20,00	24,00	9,80	10,35	4,70	7,40	10,60	13,50	16,40
8,00	12,00	16,00	20,00	24,00	9,70	10,25	6,10	9,50	12,90	16,50	19,90
9,00	13,50	18,00	22,50	27,00	10,85	11,10	5,30	8,60	11,90	15,30	18,10
10,00	15,00	20,00	25,00	30,00	11,95	12,50	5,00	8,10	11,20	14,20	17,20
10,00	15,00	20,00	25,00	30,00	12,10	12,65	6,00	9,70	13,10	16,90	20,10
10,00	15,00	20,00	25,00	30,00	12,10	12,50	7,60	12,10	16,30	20,70	25,00
11,00	16,50	22,00	27,50	33,00	13,10	13,50	5,60	9,00	12,30	15,70	19,10
12,00	18,00	24,00	30,00	36,00	14,30	15,00	5,20	8,40	11,70	14,70	18,00
12,00	18,00	24,00	30,00	36,00	14,25	14,95	6,20	9,80	13,50	17,10	20,80
12,00	18,00	24,00	30,00	36,00	14,30	15,00	7,40	11,60	15,90	20,00	24,30
12,00	18,00	24,00	30,00	36,00	14,40	14,80	9,30	14,50	19,50	24,80	30,00
14,00	21,00	28,00	35,00	42,00	16,65	17,35	5,60	8,80	12,00	15,20	18,40
14,00	21,00	28,00	35,00	42,00	15,96	16,64	7,40	11,70	15,70	19,90	24,10
14,00	21,00	28,00	35,00	42,00	15,74	16,00	8,40	12,55	18,20	23,10	28,00
14,00	21,00	28,00	35,00	42,00	15,35	15,65	11,20	19,05	12,20	29,20	35,20
16,00	24,00	32,00	40,00	48,00	18,90	19,60	6,50	10,10	13,80	17,50	21,10
16,00	24,00	32,00	40,00	48,00	18,10	18,40	8,70	13,60	18,10	22,90	27,60
18,00	27,00	36,00	45,00	54,00	21,30	22,00	5,60	9,00	12,30	15,70	19,00
18,00	27,00	36,00	45,00	54,00	20,80	21,45	7,10	11,40	15,20	19,20	23,20
18,00	27,00	36,00	45,00	54,00	20,15	20,80	9,50	15,10	20,20	25,50	30,80
20,00	30,00	40,00	50,00	60,00	23,55	24,40	6,30	10,00	13,70	17,40	21,10
20,00	30,00	40,00	50,00	60,00	22,80	23,45	8,00	12,60	16,80	21,20	25,60
20,00	30,00	40,00	50,00	60,00	22,20	22,80	10,70	17,10	22,40	28,30	34,20
22,00	33,00	44,00	55,00	66,00	25,90	26,90	6,90	10,90	15,00	19,10	23,10
22,00	33,00	44,00	55,00	66,00	24,85	25,50	8,70	14,20	18,50	23,40	28,30
22,00	33,00	44,00	55,00	66,00	24,20	24,60	11,70	18,35	24,50	30,90	37,30
24,00	36,00	48,00	60,00	72,00	28,00	29,00	6,20	10,00	14,00	17,90	21,90
24,00	36,00	48,00	60,00	72,00	26,85	27,50	9,60	15,50	20,20	25,10	30,00
24,00	36,00	48,00	60,00	72,00	26,20	26,80	12,90	20,00	26,70	33,60	40,50







INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140

TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

	TALARADO / *DRILLING* / *PREÇAGE*						ROSCADO / *THREADING* / *FILETAGE*		
D Ø X P (")	C	LONGITUD (S) / *LENGTH (S)* / *LONGEUR (S)*					B	A	
UNC	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
Nr. 2 x 56	2,40	4,80	5,90	7,00	8,10	9,20	2,84	2,29	2,44
Nr. 4 x 40	3,00	6,30	7,70	9,20	10,60	12,10	3,67	3,00	3,10
Nr. 5 x 40	3,40	6,60	8,20	9,80	11,10	13,00	4,00	3,33	3,48
Nr. 6 x 32	3,70	7,70	9,50	11,20	13,20	14,70	4,54	3,68	3,81
Nr. 8 x 32	4,40	8,40	10,50	12,50	14,70	16,80	5,11	4,34	4,45
Nr. 10 x 24	5,10	5,20	12,30	14,70	17,20	19,50	6,20	5,05	5,21
Nr. 12 x 24	5,70	5,80	13,30	16,10	18,80	21,60	6,86	5,72	5,84
1/4 x 20	6,70	6,70	15,70	18,90	22,10	25,40	8,00	6,63	6,86
5/16 x 18	8,30	8,30	19,20	23,20	27,10	31,00	9,77	8,26	8,48
3/8 x 16	9,90	9,90	21,60	26,40	31,10	35,80	11,59	9,88	10,11
7/16 x 14	11,60	11,60	25,00	30,50	36,10	41,60	13,47	11,51	11,76
1/2 x 13	13,00	13,00	28,40	34,70	41,10	47,40	15,23	13,13	13,39
9/16 x 12	14,80	14,80	30,80	37,90	45,00	52,20	17,04	14,76	15,01
5/8 x 11	16,50	16,50	35,00	43,00	50,90	58,90	18,87	16,38	16,66
3/4 x 10	19,75	19,75	39,80	49,30	58,80	68,50	22,35	19,61	19,89
7/8 x 9	23,00	23,00	46,40	57,60	68,70	79,70	25,89	22,83	23,16
1 x 8	26,25	26,25	51,20	63,90	76,60	89,30	29,52	26,09	26,47
1.1/8 x 7	29,50	29,50	58,10	72,40	86,70	101,00	33,29	29,36	29,74
1.1/4 x 7	33,00	33,00	62,80	78,70	94,70	110,60	36,46	32,54	32,92
1.3/8 x 6	36,00	36,00	69,20	86,70	104,50	121,50	40,42	35,84	36,35
1.1/2 x 6	39,50	39,50	74,00	93,00	112,50	131,10	43,60	39,01	39,52

UNF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
Nr. 4 x 40	3,00	5,600	6,655	8,500	9,900	11,200	3,53	2,972	3,048
Nr. 6 x 32	3,70	5,900	8,103	10,400	12,200	13,900	4,33	3,658	3,759
Nr. 8 x 36	4,40	8,000	9,423	12,100	14,300	16,400	5,08	4,318	4,420
Nr. 10 x 32	5,10	9,000	10,820	13,800	16,300	18,600	5,86	5,004	5,105
1/4 x 28	6,60	11,500	13,614	17,800	21,000	24,300	7,53	6,553	6,706
5/16 x 24	8,20	13,000	16,662	21,000	24,900	28,800	9,31	8,179	8,331
3/8 x 24	9,80	14,600	19,050	24,200	28,900	33,600	10,90	9,754	9,906
7/16 x 20	11,50	17,300	22,377	28,400	34,000	39,500	12,76	11,405	11,582
1/2 x 20	13,00	18,900	24,765	31,600	38,000	44,300	14,35	12,979	13,157
9/16 x 18	14,80	21,600	27,762	35,900	43,000	50,200	16,12	14,605	14,783
5/8 x 18	16,25	23,200	30,150	39,100	47,000	55,000	17,70	16,180	16,358
3/4 x 16	19,50	26,400	35,712	45,400	55,000	64,600	21,11	19,406	19,583
7/8 x 14	22,75	30,500	41,504	52,800	63,900	74,900	24,58	22,606	22,835
1 x 12	26,00	34,700	47,625	60,100	72,800	85,500	28,15	25,857	26,111
1.1/8 x 12	29,00	37,900	52,375	66,500	80,800	95,100	31,33	29,032	29,312
1.1/4 x 12	32,50	41,100	57,150	72,800	88,800	104,700	34,50	32,207	32,487
1.3/8 x 12	35,50	44,200	61,925	79,200	96,550	114,000	37,68	35,382	35,662
1.1/2 x 12	38,50	47,400	66,675	85,500	104,550	123,600	40,85	38,557	38,837

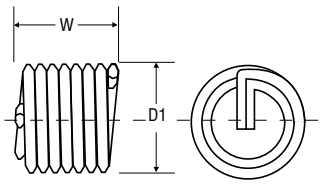
C Diámetro de broca previa / *Recommended drill diameter* / *Perçage avant trou*
S Longitud de taladrado / *Drilling Length* / *Longueur perçage*
B Ø mayor de rosca / *Maximum diameter of thread* / *Diametre maximum du filet*
A Ø menor de rosca / *Minimum diameter of thread* / *Diametre minimum du filet*
Q Longitud nominal / *Nominal Length* / *Longeur nominale*
d1 exterior del casquillo / *External Ø of wire insert* / *Diametre extérieur di filet rapporté*
W N° de hilos / *N° of coils* / *Nombre de spires*

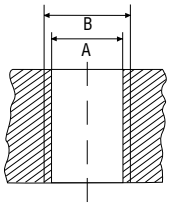
INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

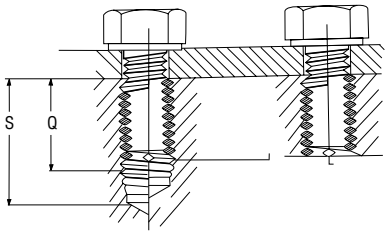
WIRE THREAD INSERTS TECHNICAL INFORMATION • INFORMATION TÉCHNIQUE FILETS RAPPORTÉS

ROSCADO / *THREADING* / *FILETAGE*					NSERTO / *INSERTS* / *FILETS RAPPORTÉS*						
LONGITUD ÚTIL (Q) / *LENGTH (Q)* / *LONGEUR (Q)*					D1		Nº DE HILOS (W) / *Nº OF COILS (W)* / *LONGEUR (W)*				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,20	3,30	4,40	5,50	6,60	2,69	2,90	3,00	5,25	7,40	9,60	11,80
2,90	4,27	5,80	7,20	8,70	3,66	4,04	2,80	4,70	6,80	8,80	10,80
3,20	4,80	6,40	7,90	9,60	3,99	4,39	3,30	5,50	7,80	10,00	10,30
3,50	5,26	7,00	8,80	10,50	4,52	4,90	2,80	4,70	6,70	8,70	10,70
4,20	6,25	8,40	10,50	12,60	5,21	5,59	3,50	6,00	8,30	10,70	13,10
4,80	7,24	9,60	12,10	14,40	6,20	6,58	2,90	5,00	7,10	9,20	11,30
5,50	8,23	11,00	13,70	16,50	6,86	7,24	3,50	5,90	8,30	10,70	13,10
6,40	9,53	12,70	15,90	19,20	7,87	8,38	3,40	5,70	8,00	10,30	12,60
7,90	11,91	15,90	19,80	23,70	9,65	10,16	4,00	6,60	9,30	11,90	14,50
9,50	14,27	19,10	23,80	28,50	11,48	11,99	4,40	7,20	10,10	12,90	15,70
11,10	16,66	22,20	27,80	33,30	13,36	14,00	4,50	7,40	10,30	13,10	15,90
12,70	19,05	25,40	31,80	38,10	15,16	15,80	4,80	7,90	10,90	13,90	16,90
14,30	21,44	28,60	35,70	42,90	16,99	17,63	5,10	8,30	11,50	14,70	17,90
15,90	23,80	31,80	39,70	47,70	18,85	19,48	5,30	9,30	11,80	15,00	18,20
19,10	28,58	38,10	47,60	57,30	22,38	23,01	5,90	9,40	13,00	16,60	20,20
22,20	33,32	44,50	55,60	66,60	25,78	26,16	6,30	10,10	13,70	17,40	21,10
25,40	38,10	50,80	63,50	76,20	29,34	29,72	6,40	10,30	14,00	17,80	21,60
28,60	42,85	57,20	71,50	85,80	33,71	34,11	6,30	9,90	13,80	17,60	21,40
31,80	47,63	63,50	79,50	95,40	37,01	37,39	7,10	11,25	15,40	19,60	23,70
34,90	52,37	69,90	87,25	104,70	40,89	41,40	6,60	10,50	14,40	18,30	22,30
38,10	57,15	76,20	95,25	114,30	44,09	44,60	7,40	11,50	15,90	20,10	24,30

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,800	4,267	5,700	7,100	8,400	3,734	4,115	3,400	5,60	7,900	10,300	27,700
3,500	5,258	7,000	8,800	10,500	4,394	4,902	3,600	6,00	8,400	10,800	13,200
4,200	6,248	8,300	10,500	12,600	5,182	5,690	4,000	6,60	9,100	11,700	14,300
4,800	7,239	9,600	12,100	14,400	5,994	6,502	4,100	6,80	9,500	12,100	14,700
6,400	9,525	12,700	15,900	19,200	7,772	8,280	5,000	8,10	11,300	14,400	17,500
7,900	11,913	15,900	19,800	23,700	9,652	10,160	5,500	8,90	12,200	15,600	19,000
9,500	14,275	19,100	23,800	28,500	11,379	11,887	6,900	10,90	14,900	19,000	23,100
11,100	16,662	22,200	27,800	33,300	13,310	13,945	6,600	10,60	14,500	18,400	22,300
12,700	19,050	25,400	31,800	38,100	15,037	15,672	7,800	12,30	16,800	21,300	25,800
14,300	21,438	28,600	35,700	42,900	16,916	17,551	7,900	12,50	17,100	21,600	26,200
15,900	23,800	31,800	39,700	47,700	18,618	19,253	8,900	14,10	19,100	24,300	29,500
19,100	28,575	38,100	47,700	57,300	22,250	22,885	9,700	15,10	20,600	26,000	31,400
22,200	33,325	44,500	55,600	66,600	24,765	25,019	9,900	16,20	21,000	26,600	32,200
25,400	38,100	50,800	63,500	76,200	28,194	28,575	9,700	15,70	20,600	26,100	31,400
28,600	42,850	57,200	71,500	85,800	31,750	32,106	10,100	17,50	24,400	31,500	38,600
31,800	47,625	63,500	79,500	95,400	35,001	35,408	12,400	19,60	26,100	33,000	39,900
34,900	52,375	69,900	87,250	104,700	38,202	38,608	13,800	21,60	28,900	36,400	43,900
38,100	57,150	76,200	95,250	114,300	41,402	41,808	15,200	23,75	31,600	39,800	48,000







INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140

TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

	TALARADO / *DRILLING* / *PREÇAGE*					ROSCADO / *THREADING* / *FILETAGE*		
D Ø X P (")	C	LONGITUD (S) / *LENGTH (S)* / *LONGUEUR (S)*				B	A	
BSW	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín,	máx,
1/8 x 40	3,40	6,600	8,204	9,800	11,100	13,000	3,93	3,277	3,429
3/16 x 24	5,10	9,900	12,192	14,700	17,000	19,500	6,01	4,978	5,105
1/4 x 20	6,70	12,600	15,240	18,900	26,100	25,400	7,80	6,629	6,782
5/16 x 18	8,30	15,200	18,237	23,200	27,100	31,000	9,60	8,331	8,484
3/8 x 16	9,90	16,800	21,438	26,400	31,100	35,800	11,40	9,906	10,109
7/16 x 14	11,60	19,400	24,816	30,500	36,100	41,600	13,20	11,506	11,760
1/2 x 12	13,00	22,000	28,575	34,700	41,100	47,400	15,20	13,081	13,335
9/16 x 12	14,80	23,600	30,963	37,900	45,000	52,200	16,80	14,681	14,935
5/8 x 11	16,70	27,100	34,214	43,000	50,900	58,900	18,60	16,586	16,840
3/4 x 10	20,00	30,300	40,005	49,300	58,800	68,500	22,00	19,837	20,091
7/8 x 9	23,00	35,300	46,025	57,600	68,700	79,700	25,50	23,012	23,266
1 x 8	26,50	38,500	52,375	63,900	76,600	89,300	29,10	26,187	26,518
BSF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
3/16 x 32	5,00	8,331	11,303	13,081	15,469	17,856	5,71	4,877	5,029
1/4 x 26	6,60	10,744	13,919	17,094	20,269	23,444	7,50	6,528	6,706
5/16 x 22	8,30	13,132	17,094	21,057	25,044	29,007	9,30	8,204	8,382
3/8 x 20	9,90	15,240	19,990	24,765	29,515	34,290	11,00	9,779	9,957
7/16 x 18	11,60	17,450	23,012	28,550	34,112	39,675	12,80	11,430	11,633
1/2 x 16	13,00	19,837	26,187	32,537	38,887	45,237	14,60	13,030	13,259
9/16 x 16	14,80	21,438	28,575	35,712	42,850	50,013	16,20	14,656	14,884
5/8 x 14	16,40	24,028	31,979	39,903	47,854	55,778	18,00	16,256	16,485
3/4 x 12	19,50	28,575	38,100	47,625	57,150	66,675	21,50	19,431	19,685
7/8 x 11	22,70	32,614	43,739	54,839	65,938	77,064	24,90	22,606	22,860
1 x 10	26,50	36,830	49,530	62,230	74,930	87,630	28,40	26,187	26,518
BSP	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
1/8 x 28	10,00	7,264	8,640	10,439	11,100	13,614	10,82	9,900	10,160
1/4 x 19	13,60	12,370	15,540	18,720	21,895	25,070	14,74	13,460	13,720
3/8 x 19	17,10	15,545	20,290	25,070	29,820	34,595	18,25	17,000	17,270
1/2 x 14	21,50	20,853	27,200	33,553	39,903	46,253	23,09	21,330	21,600
5/8 x 14	23,40	24,028	31,950	39,903	47,828	55,778	25,05	23,240	23,550
3/4 x 14	27,00	27,203	36,720	46,253	55,778	65,303	28,59	26,750	27,070
7/8 x 14	30,60	30,378	41,500	52,603	63,729	74,828	32,35	30,480	30,810
1 x 11	33,70	35,789	49,490	61,189	73,889	86,589	35,96	33,530	33,900

C Diámetro de broca previa / *Recommended drill diameter* / *Perçage avant trou*
S Longitud de taladrado / *Drilling Length* / *Longueur perçage*
B Ø mayor de rosca / *Maximum diameter of thread* / *Diametre maximum du filet*
A Ø menor de rosca / *Minimum diameter of thread* / *Diametre minimum du filet*
Q Longitud nominal / *Nominal Length* / *Longeur nominale*
d1 exterior del casquillo / *External Ø of wire insert* / *Diametre extérieur di filet rapporté*
W N° de hilos / *N° of coils* / *Nombre de spires*

RESISTENCIA DE LOS INSERTOS ROSCADOS

RESISTENCES OF WIRE TRHEAD INSERTS • RÉSISTENCES DÉS FILETS RAPPORTÉS

MATERIAL *MATERIAL / MATÉRIEL*	TEMP. MÁXIMA *MAX. TEMPERATURE / TEMPERATURE MAX.*	RESISTENCIA MÍNIMA A LA TRACCIÓN *MIN. TENSILE STRENGTH / RÉSISTENCE MIN. À LA TRACTION*
X10 Cr Ni 18-8	425° C (peak) / 315° C (cont.)	1400 N/mm²

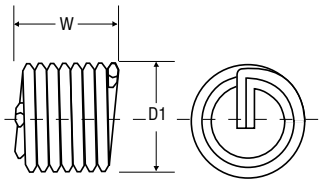
INFORMACIÓN TÉCNICA INSERTOS DE ROSCADO

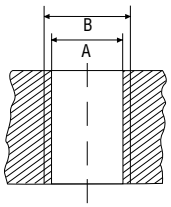
WIRE THREAD INSERTS TECHNICAL INFORMATION • INFORMATION TÉCHNIQUE FILETS RAPPORTÉS

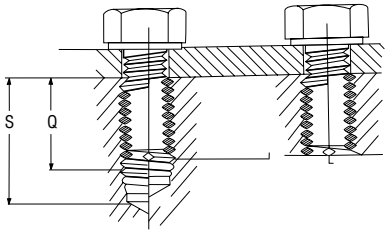
ROSCADO / *THREADING* / *FILETAGE*					NSERTO / *INSERTS* / *FILETS RAPPORTÉS*						
LONGITUD ÚTIL (Q) / *LENGTH (Q)* / *LONGEUR (Q)*					D1		Nº DE HILOS (W) / *Nº OF COILS (W)* / *LONGEUR (W)*				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín,	máx,	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
3,200	4,801	6,400	7,900	9,600	3,988	4,394	3,400	7,90	7,900	10,300	12,500
4,800	7,112	9,600	11,900	14,400	6,096	6,502	2,900	5,10	7,200	9,300	11,500
6,400	9,525	12,700	15,900	19,200	7,899	8,407	3,400	5,90	8,100	10,500	12,900
7,900	11,913	15,900	19,800	23,700	9,703	10,185	4,100	6,70	9,400	12,000	14,600
9,500	14,275	19,100	23,800	28,500	11,506	11,989	4,500	7,30	10,200	13,000	15,800
11,100	16,662	22,200	27,800	33,300	13,487	13,995	4,600	7,50	10,400	13,300	16,200
12,700	19,050	25,400	31,800	38,100	15,392	16,002	4,400	7,30	10,100	13,000	15,900
14,300	21,438	28,600	35,700	42,900	16,993	17,628	5,200	8,40	11,600	14,800	18,000
15,900	23,800	31,800	39,700	47,700	18,898	19,482	5,400	8,70	11,900	15,300	18,700
19,100	28,575	38,100	47,600	57,300	22,403	22,987	6,000	9,70	13,200	16,800	20,400
22,200	33,325	44,500	55,600	66,600	26,010	26,695	6,400	10,10	13,900	17,700	21,400
25,400	38,100	50,800	63,500	76,200	27,686	30,404	6,500	10,30	14,100	17,900	21,700

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
4,750	7,112	9,525	11,913	14,275	5,994	6,401	4,100	6,80	9,400	12,100	-
6,350	9,525	12,700	15,875	19,050	7,899	8,407	4,600	7,60	10,400	13,400	-
7,925	11,913	15,875	19,837	23,800	9,804	10,312	5,000	8,10	11,200	14,300	-
9,525	14,275	19,050	23,800	28,575	11,608	12,090	5,600	9,00	12,400	15,800	-
11,100	16,662	22,225	27,788	33,325	13,589	14,097	5,900	9,50	13,100	16,600	-
12,700	19,050	25,400	31,750	38,100	15,494	16,002	6,100	9,70	13,300	16,900	-
14,275	21,438	28,575	35,712	42,850	17,196	17,780	7,000	11,10	15,100	19,300	-
15,875	23,800	31,750	39,675	47,625	19,101	19,685	6,800	10,80	14,800	18,700	-
19,050	28,575	38,100	47,625	57,150	22,911	23,495	7,000	11,10	15,200	19,300	-
22,225	33,325	44,450	55,550	66,675	26,492	27,305	7,600	11,90	16,400	20,800	-
25,400	38,100	50,800	63,500	76,200	30,201	30,988	7,900	12,50	17,100	21,600	-

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
3,175	4,760	6,350	7,925	9,525	11,100	11,400	1,90	3,80	5,10	6,70	-
6,350	9,500	12,700	15,875	19,050	15,050	15,350	3,10	5,50	7,40	9,60	-
9,525	14,300	19,050	23,800	28,575	18,550	18,850	5,30	8,75	11,80	15,00	-
12,700	19,100	25,400	31,750	38,100	23,400	23,700	5,20	8,60	11,60	14,80	-
15,875	23,800	31,750	39,675	47,625	25,350	25,650	6,80	11,00	14,80	18,80	-
19,050	28,600	38,100	47,625	57,150	28,900	29,200	8,40	13,50	18,10	22,90	-
22,225	33,300	44,450	55,550	66,675	32,750	33,150	10,00	15,80	21,30	-	-
25,400	38,100	50,800	63,500	76,200	36,400	36,800	8,90	14,10	19,00	-	-







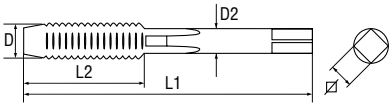
M MACHOS STI (INTERMEDIO)

STI TAPS (SECOND LEAD)

TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H

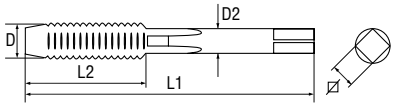


D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 2,00 x 0,40	2,5	44,5	9,5	2,8	2,24	1C03001	**16,18**
M 2,50 x 0,45	3,1	48,0	11,0	3,15	2,50	1C03003	**16,18**
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03005	**13,91**
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03006	**14,11**
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03007	**13,91**
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03008	**13,91**
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,30	1C03009	**13,91**
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03010	**17,59**
M 8,00 x 1,25	9,6	80,0	24,0	10,0	8,00	1C03011	**17,34**
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03012	**17,59**
M 9,00 x 1,25	10,6	85,0	25,0	8,0	6,30	1C03013	**21,56**
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03015	**21,24**
M 10,00 x 1,25	11,6	85,0	25,0	8,0	6,30	1C03016	**21,56**
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03017	**21,56**
M 11,00 x 1,50	12,9	89,0	29,0	9,0	7,10	1C03018	**24,39**
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03020	**24,05**
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03021	**29,79**
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03022	**29,79**
M 12,00 x 1,00	13,3	95,0	30,0	11,2	9,00	1C03023	**29,79**
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03027	**33,39**
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03028	**33,39**
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03029	**33,39**
M 14,00 x 1,00	15,3	102,0	32,0	12,5	10,00	1C03030	**33,39**
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03033	**39,97**
M 16,00 x 1,50	18,0	104,0	29,0	14,0	11,20	1C03034	**40,55**
M 18,00 x 2,50	21,3	118,0	38,0	16,0	12,50	1C03035	**51,35**
M 18,00 x 2,00	20,6	104,0	29,0	14,0	11,20	1C03036	**51,35**
M 18,00 x 1,50	20,0	104,0	29,0	14,0	11,20	1C03037	**51,35**
M 20,00 x 2,50	23,3	118,0	38,0	16,0	12,50	1C03038	**56,47**
M 20,00 x 2,00	22,6	113,0	33,0	16,0	12,50	1C03039	**56,47**
M 20,00 x 1,50	22,0	113,0	33,0	16,0	12,50	1C03040	**56,47**
M 22,00 x 2,50	25,3	130,0	45,0	18,0	14,00	1C03041	**64,95**
M 22,00 x 2,00	24,6	120,0	35,0	18,0	14,00	1C03042	**64,95**
M 22,00 x 1,50	24,0	120,0	35,0	18,0	14,00	1C03043	**64,95**
M 24,00 x 3,00	27,9	138,0	48,0	20,0	16,00	1C03044	**82,14**
M 24,00 x 2,00	26,6	127,0	37,0	20,0	16,00	1C03045	**82,14**
M 24,00 x 1,50	26,0	120,0	35,0	18,0	14,00	1C03046	**82,14**

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G | FORM D | TOL ISO1 4H



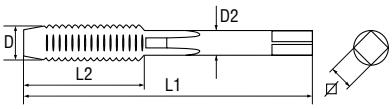
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod,	€/Unid.
M 26,00 x 1,50	28,0	127,0	37,0	20,0	16,00	1C03049	**240,58**
M 27,00 x 3,00	30,9	151,0	51,0	22,4	18,00	1C03050	**240,58**
M 27,00 x 2,00	29,6	127,0	37,0	20,0	16,00	1C03051	**240,58**
M 27,00 x 1,50	29,0	127,0	37,0	20,0	16,00	1C03052	**240,58**
M 28,00 x 1,50	30,0	127,0	37,0	20,0	16,00	1C03053	**240,58**
M 30,00 x 3,50	34,6	162,0	57,0	25,0	20,00	1C03054	**319,99**
M 30,00 x 2,00	32,6	137,0	37,0	22,4	18,00	1C03055	**319,99**
M 30,00 x 1,50	32,0	137,0	37,0	22,4	18,00	1C03056	**319,99**
M 33,00 x 3,50	37,6	162,0	57,0	25,0	20,00	1C03057	**319,99**
M 33,00 x 2,00	35,6	144,0	37,0	25,0	20,00	1C03058	**319,99**
M 36,00 x 4,00	41,2	170,0	60,0	28,0	22,40	1C03060	**355,03**
M 36,00 x 3,00	39,9	170,0	60,0	28,0	22,40	1C03061	**355,03**
M 36,00 x 2,00	38,6	150,0	39,0	28,0	22,40	1C03062	**355,03**
M 36,00 x 1,50	38,0	150,0	39,0	28,0	22,40	1C03063	**355,03**

UNC

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL 3B



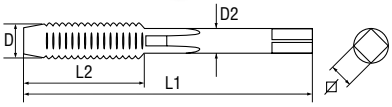
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC/NC							
Nr. 2 x 56	2,8	48,0	10,0	3,15	2,50	1C03100	**22,42**
Nr. 4 x 40	3,7	53,0	13,0	4,00	3,15	1C03101	**22,42**
Nr. 5 x 40	4,0	53,0	13,0	4,00	3,15	1C03102	**22,42**
Nr. 6 x 32	4,5	58,0	16,0	5,00	4,00	1C03103	**22,42**
Nr. 8 x 32	5,2	62,0	17,0	5,60	4,50	1C03104	**22,42**
Nr. 10 x 24	6,2	66,0	19,0	6,30	5,00	1C03105	**22,42**
Nr. 12 x 24	6,9	66,0	19,0	7,10	5,60	1C03106	**22,42**
1/4 x 20	8,0	72,0	22,0	8,00	6,30	1C03107	**14,68**
5/16 x 18	9,8	80,0	24,0	10,00	8,00	1C03108	**16,16**
3/8 x 16	11,6	85,0	25,0	8,00	6,30	1C03109	**16,83**
7/16 x 14	13,5	95,0	30,0	11,20	9,00	1C03110	**22,42**
1/2 x 13	15,2	102,0	32,0	12,50	10,00	1C03111	**25,37**
9/16 x 12	17,0	112,0	37,0	14,00	11,20	1C03112	**42,17**
5/8 x 11	18,9	112,0	37,0	14,00	11,20	1C03113	**52,07**
3/4 x 10	22,4	118,0	38,0	16,00	12,50	1C03114	**63,27**
7/8 x 9	25,9	130,0	45,0	18,00	14,00	1C03115	**73,83**
1 x 8	29,5	138,0	48,0	20,00	16,00	1C03116	**73,83**

UNC

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G | FORM D | TOL 3B



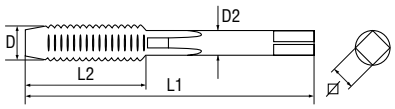
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC/NC							
1.1/8 x 7	33,3	151,0	51,0	22,4	18,00	1C03117	**223,59**
1.1/4 x 7	36,5	162,0	57,0	25,0	20,00	1C03118	**268,27**
1.3/8 x 6	40,4	170,0	60,0	28,0	22,40	1C03119	**335,36**
1.1/2 x 6	43,6	187,0	67,0	31,5	25,00	1C03120	**434,66**

UNF

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL 3B



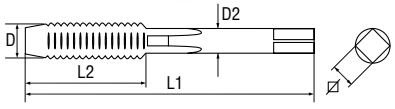
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF/NF							
Nr. 4 x 48	3,5	53,0	13,0	4,0	3,15	1C03151	**22,42**
Nr. 6 x 40	4,3	53,0	13,0	4,5	3,55	1C03152	**22,42**
Nr. 8 x 36	5,1	62,0	17,0	5,6	4,50	1C03153	**22,42**
Nr. 10 x 32	5,9	66,0	19,0	6,3	5,00	1C03154	**22,42**
1/4 x 28	7,5	69,0	19,0	8,0	6,30	1C03155	**14,68**
5/16 x 24	9,3	76,0	20,0	10,0	8,00	1C03156	**16,16**
3/8 x 24	10,9	82,0	22,0	8,0	6,30	1C03157	**16,83**
7/16 x 20	12,8	84,0	24,0	9,0	7,10	1C03158	**22,42**
1/2 x 20	14,4	90,0	25,0	11,2	9,00	1C03159	**23,04**
9/16 x 18	16,1	104,0	29,0	12,5	10,00	1C03160	**42,17**
5/8 x 18	17,7	104,0	29,0	14,0	11,20	1C03161	**52,07**
3/4 x 16	21,1	104,0	29,0	14,0	11,20	1C03162	**63,27**
7/8 x 14	24,6	120,0	35,0	18,0	14,00	1C03163	**73,43**
1 x 12	28,2	127,0	37,0	20,0	16,00	1C03164	**73,43**
1 x 14	27,8	127,0	37,0	20,0	16,00	1C03165	**73,43**

UNF

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G | FORM D | TOL 3B



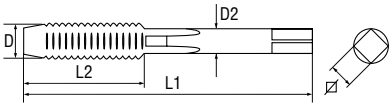
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF/NF							
1.1/8 x 12	31,3	137,0	37,0	22,4	18,00	1C03166	**223,59**
1.1/4 x 12	34,5	144,0	39,0	25,0	20,00	1C03167	**268,27**
1.3/8 x 12	37,7	150,0	39,0	28,0	22,40	1C03168	**335,36**
1.1/2 x 12	40,9	150,0	39,0	28,0	22,40	1C03169	**434,66**

G(BSP) MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



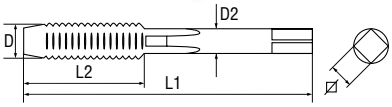
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 28	10,8	59,0	15,0	8,00	6,30	1C03301	**19,77**
1/4 x 19	14,7	67,0	19,0	11,20	9,00	1C03302	**22,42**
3/8 x 19	18,3	75,0	21,0	14,00	11,20	1C03303	**29,49**
1/2 x 14	23,1	87,0	26,0	16,00	12,50	1C03304	**47,79**
5/8 x 14	25,0	91,0	26,0	18,00	14,00	1C03305	**70,23**
3/4 x 14	28,6	96,0	28,0	20,00	16,00	1C03306	**70,23**
1 x 11	36,0	109,0	33,0	25,00	20,00	1C03307	**109,74**

G(BSP) MACHOS STI, JUEGO 2 PIEZAS

STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES



HSS-G | FORM D | TOL ISO1 4H



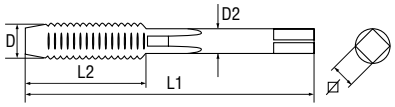
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 28	10,0	59,0	15,0	8,0	6,30	1C03311	**34,91**
1/4 x 19	14,7	67,0	19,0	11,2	9,00	1C03312	**39,63**
3/8 x 19	18,3	75,0	21,0	14,0	11,20	1C03313	**52,12**
1/2 x 14	23,1	87,0	26,0	16,0	12,50	1C03314	**84,43**
5/8 x 14	25,1	91,0	26,0	18,0	14,00	1C03315	**124,05**
3/4 x 14	28,6	96,0	28,0	20,0	16,00	1C03316	**124,05**
7/8 x 14	32,4	102,0	29,0	22,4	18,00	1C03318	**193,85**
1 x 11	36,0	109,0	33,0	25,0	20,00	1C03317	**193,85**

BSW MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



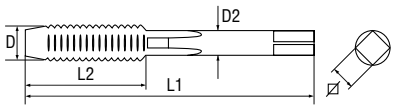
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 40	3,9	53,0	13,0	4,0	3,15	1C03201	**14,68**
3/16 x 24	6,0	56,0	19,0	6,3	5,00	1C03202	**14,68**
1/4 x 20	7,8	72,0	22,0	8,0	6,30	1C03203	**14,68**
5/16 x 18	9,6	80,0	24,0	10,0	8,00	1C03204	**16,16**
3/8 x 16	11,4	85,0	25,0	8,0	6,30	1C03205	**16,83**
7/16 x 14	13,2	95,0	30,0	11,2	9,00	1C03206	**22,42**
1/2 x 12	15,2	102,0	32,0	12,5	10,00	1C03207	**25,37**
9/16 x 12	16,8	102,0	32,0	12,5	10,00	1C03208	**42,17**
5/8 x 11	18,6	112,0	37,0	14,0	11,20	1C03209	**52,07**
11/16 x 11	20,2	112,0	37,0	14,0	11,20	1C03210	**63,27**
3/4 x 10	22,0	118,0	38,0	16,0	12,50	1C03211	**63,27**
7/8 x 9	25,5	130,0	45,0	18,0	14,00	1C03212	**73,43**
1 x 8	29,1	138,0	48,0	20,0	16,00	1C03213	**73,43**

BSF MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



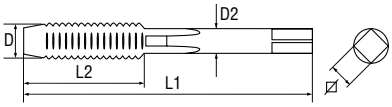
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
3/16 x 32	5,7	66,0	19,0	6,3	5,00	1C03251	**14,68**
1/4 x 26	7,5	72,0	22,0	8,0	6,30	1C03253	**14,68**
5/16 x 22	9,3	80,0	24,0	10,0	8,00	1C03255	**16,16**
3/8 x 20	11,0	85,0	25,0	8,0	6,30	1C03256	**16,83**
7/16 x 18	12,8	89,0	29,0	9,0	7,10	1C03257	**22,42**
1/2 x 16	14,6	95,0	30,0	11,2	9,00	1C03258	**25,37**
9/16 x 16	16,2	102,0	32,0	12,5	10,00	1C03259	**42,17**
5/8 x 14	18,0	112,0	37,0	14,0	11,20	1C03260	**52,07**
11/16 x 14	19,6	112,0	37,0	14,0	11,20	1C03261	**63,27**
3/4 x 12	21,5	118,0	38,0	16,0	12,50	1C03262	**63,27**
7/8 x 11	24,9	130,0	45,0	18,0	14,00	1C03264	**73,43**
1 x 10	28,4	138,0	48,0	20,0	16,00	1C03265	**73,43**

BA MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



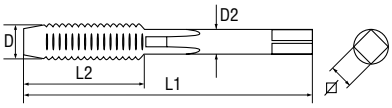
D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BA 0	7,1	66,0	19,0	7,10	5,60	1C03321	**14,68**
BA 2	5,6	66,0	19,0	6,30	5,00	1C03323	**14,68**
BA 4	4,4	53,0	13,0	4,50	3,55	1C03325	**14,68**
BA 6	3,4	50,0	13,0	3,55	2,80	1C03327	**14,68**

BS. Brass MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI



HSS-G | FORM D | TOL ISO1 4H



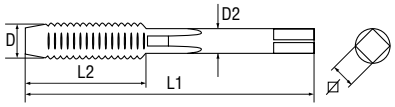
D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/4 x 26	7,5	69,0	19,0	8,00	6,30	1C03341	**14,68**
5/16 x 26	9,1	76,0	20,0	10,00	8,00	1C03342	**16,16**
3/8 x 26	10,7	82,0	22,0	8,00	6,30	1C03343	**16,83**
7/16 x 26	12,3	84,0	24,0	9,00	7,10	1C03344	**22,42**
1/2 x 26	13,9	90,0	25,0	11,20	9,00	1C03345	**25,37**

Consultar precio y plazo para kit / *Request price and availability for kit* / *Consulter de prix et le disponibilité pour kit*

MACHOS MÁQUINA STI (PASANTE)
STI MACHINE TAPS (SPIRAL POINT)
TARAUDS MACHINE STI ENTRÉE GÜN



HSS-CO 5% | FORM B | TOL ISO1 4H

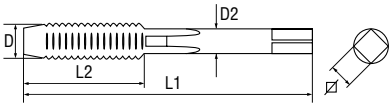


D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03505	**16,59**
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03506	**16,59**
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03507	**16,59**
M 5,00 x 0,80	6,0	66,0	19,0	5,0	5,00	1C03508	**16,59**
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03509	**16,59**
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03510	**20,78**
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03511	**20,78**
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03512	**20,78**
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03515	**25,01**
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03517	**25,01**
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03520	**33,15**
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03521	**34,24**
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03522	**34,24**
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03527	**45,80**
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03528	**45,80**
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03529	**45,80**
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03533	**48,41**

MACHOS MÁQUINA STI (CIEGO)
STI MACHINE TAPS (SPIRAL FLUTE)
TARAUDS MACHINE STI HÉLICOIDAL



HSS-CO 5% | FORM C/35° | TOL ISO1 4H

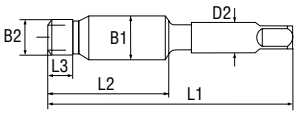


D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03705	**16,59**
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03706	**16,59**
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03707	**16,59**
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03708	**16,59**
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03709	**16,59**
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03710	**20,78**
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03711	**20,78**
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03712	**20,78**
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03715	**25,01**
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03717	**25,01**
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03720	**33,15**
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03721	**34,24**
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03722	**34,24**
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03727	**45,80**
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03728	**45,80**
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03729	**45,80**
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03733	**48,41**

MACHOS STI "SPARK PLUG" CON PUNTA PILOTO
STI-SPARK PLUG TAPS WITH PILOT NOSE
TARAUDS STI ÉTAGÉS



HSS-G | TOL ISO1 4H



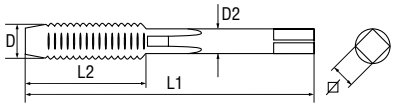
D Ø x P (mm)	B1 (mm)	B2 (mm)	L3 (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 6,00 x 1,00	7,3	6	7	28	70	8	6,3	1C03630	**26,95**
M 8,00 x 1,25	9,6	8	9	32	75	8	6,3	1C03631	**26,95**
M 10,00 x 1,50	11,9	10	9	37	80	9	7,1	1C03632	**33,87**
M 10,00 x 1,00	11,3	10	8	30	74	8	6,3	1C03633	**33,87**
M 12,00 x 1,25	13,6	12	9	32	75	9	7,1	1C03634	**48,77**
M 14,00 x 1,25	15,6	14	10	45	90	12	9,2	1C03635	**54,56**
M 18,00 x 1,50	20,0	18	10	47	116	16	12,5	1C03636	**81,14**

MACHOS STI POR LAMINACIÓN
STI-FLUTELESS TAPS
TARAUDS STI À REFOULER



HSS-CO 5%

TOL ISO1 4H



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03605	**25,37**
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03607	**27,51**
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03608	**27,51**
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03609	**31,51**
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03611	**37,90**
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03615	**44,86**
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03620	**63,27**

DIÁMETRO BROCA PREVIA / *RECOMMENDED TAPPINNG DRILL SIZES* / *DIAMÈTRES PRÉALABLES AU FILETAGE*

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12
3,40	4,60	5,60	6,80	9,00	11,20	13,40

M y Mf INSERTOS ROSCADOS DE ACERO INOXIDABLE

STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 **6H**



		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (mm)	**Uds. / *Pcs.***	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**
M 2.0 x 0.40	100	2C07202	**0,99**	2C07302	**1,22**	2C07402	**1,49**	2C07502	**1,68**	2C07602	**2,10**
M 2,2 x 0,45	100	2C07203	**0,99**	2C07303	**1,22**	2C07403	**1,49**	2C07503	**1,68**	2C07603	**2,10**
M 2,5 x 0,45	100	2C07204	**0,30**	2C07304	**0,29**	2C07404	**0,34**	2C07504	**0,40**	2C07604	**0,48**
M 3,0 x 0,50	100	2C07205	**0,30**	2C07305	**0,29**	2C07405	**0,34**	2C07505	**0,40**	2C07605	**0,48**
M 3,5 x 0,60	100	2C07206	**0,34**	2C07306	**0,34**	2C07406	**0,39**	2C07506	**0,44**	2C07606	**0,53**
M 4,0 x 0,70	100	2C07207	**0,30**	2C07307	**0,29**	2C07407	**0,34**	2C07507	**0,40**	2C07607	**0,44**
M 5,0 x 0,80	100	2C07208	**0,34**	2C07308	**0,26**	2C07408	**0,39**	2C07508	**0,47**	2C07608	**0,56**
M 6,0 x 1,00	100	2C07209	**0,36**	2C07309	**0,28**	2C07409	**0,44**	2C07509	**0,53**	2C07609	**0,65**
M 7,0 x 1,00	100	2C07210	**0,40**	2C07310	**0,45**	2C07410	**0,53**	2C07510	**0,64**	2C07610	**0,76**
M 8,0 x 1,25	100	2C07211	**0,39**	2C07311	**0,37**	2C07411	**0,53**	2C07511	**0,64**	2C07611	**0,76**
M 8,0 x 1,00	100	2C07212	**0,44**	2C07312	**0,42**	2C07412	**0,57**	2C07512	**0,67**	2C07612	**0,82**
M 9,0 x 1,25	100	2C07213	**0,53**	2C07313	**0,68**	2C07413	**0,72**	2C07513	**0,78**	2C07613	**0,92**
M 10,0 x 1,50	100	2C07215	**0,48**	2C07315	**0,50**	2C07415	**0,61**	2C07515	**0,74**	2C07615	**0,89**
M 10,0 x 1,25	100	2C07216	**0,48**	2C07316	**0,50**	2C07416	**0,61**	2C07516	**0,74**	2C07616	**0,89**
M 10,0 x 1,00	100	2C07217	**0,48**	2C07317	**0,50**	2C07417	**0,61**	2C07517	**0,74**	2C07617	**0,89**
M 11,0 x 1,50	100	2C07219	**0,81**	2C07319	**0,85**	2C07419	**0,90**	2C07519	**1,18**	2C07619	**1,32**
M 12,0 x 1,75	100	2C07221	**0,72**	2C07321	**0,78**	2C07421	**0,92**	2C07521	**1,09**	2C07621	**1,32**
M 12,0 x 1,50	100	2C07222	**0,72**	2C07322	**0,78**	2C07422	**0,92**	2C07522	**1,09**	2C07622	**1,32**
M 12,0 x 1,25	100	2C07223	**0,72**	2C07323	**0,78**	2C07423	**0,92**	2C07523	**1,09**	2C07623	**1,32**
M 12,0 x 1,00	100	2C07224	**0,72**	2C07324	**0,78**	2C07424	**0,92**	2C07524	**1,09**	2C07624	**1,32**
M 14,0 x 2,00	50	2C07225	**1,01**	2C07325	**1,09**	2C07425	**1,20**	2C07525	**1,45**	2C07625	**1,76**
M 14,0 x 1,50	50	2C07226	**1,01**	2C07326	**1,09**	2C07426	**1,20**	2C07526	**1,45**	2C07626	**1,76**
M 14,0 x 1,25	50	2C07227	**1,01**	2C07327	**1,09**	2C07427	**1,20**	2C07527	**1,45**	2C07627	**1,76**
M 14,0 x 1,00	50	2C07231	**1,23**	2C07331	**1,09**	2C07431	**1,45**	2C07531	**1,76**	2C07631	**2,10**
M 16,0 x 2,00	50	2C07234	**1,37**	2C07334	**1,35**	2C07434	**1,76**	2C07534	**1,93**	2C07634	**2,10**
M 16,0 x 1,50	50	2C07235	**1,37**	2C07335	**1,35**	2C07435	**1,76**	2C07535	**1,93**	2C07635	**2,10**
M 18,0 x 2,50	25	2C07236	**2,00**	2C07336	**2,19**	2C07436	**3,16**	2C07536	**3,58**	2C07636	**4,20**
M 18,0 x 2,00	25	2C07237	**2,00**	2C07337	**2,19**	2C07437	**3,16**	2C07537	**3,58**	2C07637	**4,20**
M 18,0 x 1,50	25	2C07238	**2,00**	2C07338	**2,19**	2C07438	**3,16**	2C07538	**3,58**	2C07638	**4,20**
M 20,0 x 2,50	25	2C07239	**2,32**	2C07339	**2,78**	2C07439	**3,78**	2C07539	**4,20**	2C07639	**4,84**
M 20,0 x 2,00	25	2C07240	**2,32**	2C07340	**2,78**	2C07440	**3,78**	2C07540	**4,20**	2C07640	**4,84**
M 20,0 x 1,50	25	2C07241	**2,32**	2C07341	**2,78**	2C07441	**3,78**	2C07541	**4,20**	2C07641	**4,84**
M 22,0 x 2,50	10	2C07242	**2,52**	2C07342	**2,98**	2C07442	**4,00**	2C07542	**4,62**	2C07642	**5,26**
M 22,0 x 2,00	10	2C07243	**2,52**	2C07343	**2,98**	2C07443	**4,00**	2C07543	**4,62**	2C07643	**5,26**
M 22,0 x 1,50	10	2C07244	**2,52**	2C07344	**2,98**	2C07444	**4,00**	2C07544	**4,62**	2C07644	**5,26**
M 24,0 x 3,00	10	2C07245	**3,16**	2C07345	**3,18**	2C07445	**4,20**	2C07545	**5,04**	2C07645	**5,89**
M 24,0 x 2,00	10	2C07246	**3,16**	2C07346	**3,18**	2C07446	**4,20**	2C07546	**5,04**	2C07646	**5,89**
M 24,0 x 1,50	10	2C07247	**3,16**	2C07347	**3,18**	2C07447	**4,20**	2C07547	**5,04**	2C07647	**5,89**
M 26,0 x 1,50	5	-	-	2C07349	**5,17**	-	-	-	-	-	-
M 27,0 x 3,00	5	-	-	2C07350	**5,17**	-	-	-	-	-	-
M 27,0 x 2,00	5	-	-	2C07351	**5,17**	-	-	-	-	-	-
M 27,0 x 1,50	5	-	-	2C07352	**5,17**	-	-	-	-	-	-
M 28,0 x 1,50	5	-	-	2C07353	**5,17**	-	-	-	-	-	-
M 30,0 x 3,50	5	-	-	2C07354	**5,96**	-	-	-	-	-	-
M 30,0 x 2,00	5	-	-	2C07355	**5,96**	-	-	-	-	-	-
M 30,0 x 1,50	5	-	-	2C07356	**5,96**	-	-	-	-	-	-
M 33,0 x 3,50	5	-	-	2C07357	**7,55**	-	-	-	-	-	-
M 33,0 x 2,00	5	-	-	2C07358	**7,55**	-	-	-	-	-	-
M 36,0 x 4,00	5	-	-	2C07360	**7,55**	-	-	-	-	-	-
M 36,0 x 3,00	5	-	-	2C07361	**7,55**	-	-	-	-	-	-
M 36,0 x 2,00	5	-	-	2C07362	**7,55**	-	-	-	-	-	-
M 36,0 x 1,50	5	-	-	2C07363	**7,55**	-	-	-	-	-	-

Mf INSERTOS ROSCADOS PARA LAS ROSCAS DE LAS BUJÍAS
STAINLESS STEEL WIRE THREAD INSERTS FOR SPARK PLUG
FILETS RAPPORTÉS INOX POUR BOUGIES

DIN 8140 **TOL ISO2 6H**





		8,40		12,40		16,40	
D Ø x P (mm)	**Uds. / *Pcs.***	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**
M 14 x 1,25	50	2C07128	**1,09**	2C07228	**1,09**	2C07328	**1,09**

MIINSERTOS ROSCADOS AUTOFRENANTES DE ACERO INOXIDABLE
SCREW LOCKING STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX INDESSERRABLES

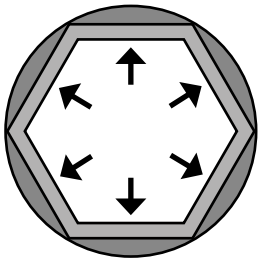
DIN 8140 **TOL ISO2 6H**





		1,0 x DØ		1,5 x DØ		2,0 x DØ	
D Ø x P (mm)	**Uds. / *Pcs.***	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**
M 3 x 0,50	100	2C05205	**0,36**	2C05305	**0,37**	2C05405	**0,40**
M 4 x 0,70	100	2C05207	**0,36**	2C05307	**0,37**	2C05407	**0,40**
M 5 x 0,80	100	2C05208	**0,40**	2C05308	**0,40**	2C05408	**0,47**
M 6 x 1,00	100	2C05209	**0,44**	2C05309	**0,45**	2C05409	**0,53**
M 8 x 1,25	100	2C05211	**0,47**	2C05311	**0,50**	2C05411	**0,64**
M 10 x 1,50	100	2C05215	**0,59**	2C05315	**0,60**	2C05415	**0,74**
M 12 x 1,75	100	2C05221	**0,86**	2C05321	**0,93**	2C05421	**1,11**
M 14 x 2,00	50	2C05225	**1,23**	2C05325	**1,31**	2C05425	**1,45**
M 16 x 2,00	50	2C05234	**1,65**	2C05334	**1,64**	2C05434	**2,12**

Consultar precio y plazo para largos de 2,5xD y 3,0xD
Request prices and availability for length of 2,5xD and 3,0xD
Consulter de prix et le disponibilité pour longueur 2,5xD et 3,0xD



- Insertos con sistema de frenado interno
  Wire thread inserts with a locking internal system
  Filets rapportés avec systéme interne autofreinage.
- Indicados en mecanismos con altas vibraciones o impactos
  Suited to high impact and vibrations systems
  ndiqués pour mécanismes avec grandes vibrations et impacts
- Se recomienda su utilización con tornillería lubrificada o con recubrimientos
  Recommended for using with oil lubricated bolts
  Utilisation recommandé avec boulons lubrifiés

UNC INSERTOS ROSCADOS DE ACERO INOXIDABLE

STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 TOL **2B**



			1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (")		**Uds. / *Pcs.***	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**
Nr.	**2 x 56**	100	2C08200	**0,99**	2C08300	**1,09**	2C08400	**1,49**	2C08500	**1,68**	2C08600	**2,10**
Nr.	**4 x 40**	100	2C08201	**0,39**	2C08301	**0,34**	2C08401	**0,39**	2C08501	**0,44**	2C08601	**0,53**
Nr.	**5 x 40**	100	2C08202	**0,40**	2C08302	**0,40**	2C08402	**0,44**	2C08502	**0,53**	2C08602	**0,64**
Nr.	**6 x 32**	100	2C08203	**0,30**	2C08303	**0,32**	2C08403	**0,36**	2C08503	**0,40**	2C08603	**0,47**
Nr.	**8 x 32**	100	2C08204	**0,30**	2C08304	**0,32**	2C08404	**0,36**	2C08504	**0,40**	2C08604	**0,47**
Nr.	**10 x 24**	100	2C08205	**0,39**	2C08305	**0,37**	2C08405	**0,42**	2C08505	**0,50**	2C08605	**0,61**
Nr.	**12 x 24**	100	2C08206	**0,40**	2C08306	**0,42**	2C08406	**0,48**	2C08506	**0,59**	2C08606	**0,72**
	1/4 x 20	100	2C08207	**0,40**	2C08307	**0,42**	2C08407	**0,48**	2C08507	**0,59**	2C08607	**0,72**
	5/16 x 18	100	2C08208	**0,53**	2C08308	**0,60**	2C08408	**0,67**	2C08508	**0,81**	2C08608	**0,98**
	3/8 x 16	100	2C08209	**0,82**	2C08309	**0,78**	2C08409	**1,07**	2C08509	**1,23**	2C08609	**1,45**
	7/16 x 14	100	2C08210	**0,90**	2C08310	**1,03**	2C08410	**1,24**	2C08510	**1,48**	2C08610	**1,82**
	1/2 x 13	100	2C08211	**0,98**	2C08311	**1,03**	2C08411	**1,24**	2C08511	**1,48**	2C08611	**1,82**
	9/16 x 12	50	2C08212	**3,16**	2C08312	**3,98**	2C08412	**5,41**	2C08512	**6,18**	2C08612	**7,46**
	5/8 x 11	50	2C08214	**2,86**	2C08314	**3,62**	2C08414	**4,76**	2C08514	**5,69**	2C08614	**6,78**
	3/4 x 10	25	2C08216	**3,33**	2C08316	**4,27**	2C08416	**5,64**	2C08516	**6,69**	2C08616	**8,01**
	7/8 x 9	10	2C08218	**4,42**	2C08318	**6,26**	2C08418	**8,41**	2C08518	**9,94**	2C08618	**12,08**
	1 x 8	10	2C08219	**4,42**	2C08319	**6,26**	2C08419	**8,41**	2C08519	**9,94**	2C08619	**12,08**
	1.1/8 x 7	5	-	**-**	2C08320	**10,14**	-	**-**	-	**-**	-	**-**
	1.1/4 x 7	5	-	**-**	2C08321	**11,13**	-	**-**	-	**-**	-	**-**
	1.3/8 x 6	5	-	**-**	2C08322	**12,33**	-	**-**	-	**-**	-	**-**
	1.1/2 x 6	5	-	**-**	2C08323	**14,31**	-	**-**	-	**-**	-	**-**

UNF

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL 2B



			1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
	D Ø x P (")	Uds. / *Pcs.*	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
Nr.	4 x 48	100	2C08290	**0,89**	2C08390	**0,96**	2C08490	**1,34**	2C08590	**1,49**	2C08690	**1,90**
Nr.	6 x 40	100	2C08291	**0,89**	2C08391	**0,96**	2C08491	**1,34**	2C08591	**1,49**	2C08691	**1,90**
Nr.	8 x 36	100	2C08292	**0,89**	2C08392	**0,96**	2C08492	**1,34**	2C08592	**1,49**	2C08692	**1,90**
Nr.	10 x 32	100	2C08293	**0,39**	2C08393	**0,38**	2C08493	**0,48**	2C08593	**0,59**	2C08693	**0,72**
	1/4 x 28	100	2C08225	**0,39**	2C08325	**0,38**	2C08425	**0,48**	2C08525	**0,59**	2C08625	**0,72**
	5/16 x 24	100	2C08226	**0,53**	2C08326	**0,54**	2C08426	**0,67**	2C08526	**0,81**	2C08626	**0,98**
	3/8 x 24	100	2C08227	**0,78**	2C08327	**0,78**	2C08427	**0,99**	2C08527	**1,20**	2C08627	**1,45**
	7/16 x 20	100	2C08228	**0,98**	2C08328	**1,03**	2C08428	**1,24**	2C08528	**1,48**	2C08628	**1,82**
	1/2 x 20	100	2C08229	**0,98**	2C08329	**1,03**	2C08429	**1,24**	2C08529	**1,48**	2C08629	**1,82**
	9/16 x 18	50	2C08230	**2,30**	2C08330	**2,17**	2C08430	**2,75**	2C08530	**3,36**	2C08630	**3,86**
	5/8 x 18	50	2C08231	**2,30**	2C08331	**2,17**	2C08431	**2,75**	2C08531	**3,16**	2C08631	**3,86**
	3/4 x 16	25	2C08233	**3,78**	2C08333	**4,98**	2C08433	**6,35**	2C08533	**7,70**	2C08633	**9,23**
	7/8 x 14	10	2C08235	**5,12**	2C08335	**7,15**	2C08435	**9,63**	2C08535	**11,07**	2C08635	**13,26**
	1 x 12	10	2C08237	**5,12**	2C08337	**7,15**	2C08437	**9,63**	2C08537	**11,07**	2C08637	**13,26**
	1.1/8 x 12	5	-	-	2C08396	**10,14**	-	-	-	-	-	-
	1.1/4 x 12	5	-	-	2C08397	**11,13**	-	-	-	-	-	-
	1.3/8 x 12	5	-	-	2C08398	**12,33**	-	-	-	-	-	-
	1.1/2 x 12	5	-	-	2C08399	**14,31**	-	-	-	-	-	-

BSW

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 **6H**



		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (")	**Uds. / *Pcs.***	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**
1/8 x 40	100	2C08241	**1,16**	2C08341	**1,27**	2C08441	**2,10**	2C08541	**2,38**	2C08641	**2,55**
3/16 x 24	100	2C08242	**1,16**	2C08342	**1,27**	2C08442	**2,10**	2C08542	**2,38**	2C08642	**2,55**
1/4 x 20	100	2C08243	**0,50**	2C08343	**0,53**	2C08443	**0,64**	2C08543	**0,84**	2C08643	**0,90**
5/16 x 18	100	2C08244	**0,59**	2C08344	**0,64**	2C08444	**0,74**	2C08544	**0,89**	2C08644	**1,07**
3/8 x 16	100	2C08245	**1,03**	2C08345	**1,06**	2C08445	**1,31**	2C08545	**1,53**	2C08645	**1,85**
7/16 x 14	100	2C08246	**1,26**	2C08346	**1,31**	2C08446	**1,60**	2C08546	**1,90**	2C08646	**2,32**
1/2 x 12	100	2C08247	**1,26**	2C08347	**1,31**	2C08447	**1,60**	2C08547	**1,90**	2C08647	**2,32**
9/16 x 12	50	2C08248	**3,16**	2C08348	**4,18**	2C08448	**5,19**	2C08548	**6,18**	2C08648	**7,57**
5/8 x 11	50	2C08249	**3,16**	2C08349	**4,18**	2C08449	**5,19**	2C08549	**6,18**	2C08649	**7,57**
3/4 x 10	25	2C08251	**4,08**	2C08351	**4,98**	2C08451	**6,42**	2C08551	**7,70**	2C08651	**9,23**
7/8 x 9	10	2C08253	**5,26**	2C08353	**6,96**	2C08453	**9,19**	2C08553	**11,07**	2C08653	**13,26**
1 x 8	10	2C08255	**5,68**	2C08355	**7,95**	2C08455	**9,19**	2C08555	**11,07**	2C08655	**13,26**

G(BSP) INSERTOS ROSCADOS DE ACERO INOXIDABLE

WIRE THREAD INSERTS "FREE RUNNING" STAINLESS STEEL
FILETS RAPPORTÉS INOX

DIN 8140 TOL ISO2 **6H**



		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (")	**Uds. / *Pcs.***	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**
1/8 x 28	50	-	-	2C08380	**0,80**	-	-	-	-	-	-
1/4 x 19	50	-	-	2C08381	**1,20**	-	-	-	-	-	-
3/8 x 19	50	-	-	2C08382	**1,40**	-	-	-	-	-	-
1/2 x 14	50	-	-	2C08383	**1,80**	-	-	-	-	-	-
5/8 x 14	5	-	-	2C08384	**4,47**	-	-	-	-	-	-
3/4 x 14	5	-	-	2C08385	**4,47**	-	-	-	-	-	-
7/8 x 14	5	-	-	2C08386	**13,72**	-	-	-	-	-	-
1 x 11	5	-	-	2C08387	**13,72**	-	-	-	-	-	-

BSF INSERTOS ROSCADOS "FACIL INSERCIÓN", INOXIDABLE

WIRE THREAD INSERTS "FREE RUNNING" STAINLESS STEEL
FILETS RAPPORTÉS INOX

DIN 8140 TOL ISO2 **6H**



		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (")	**Uds. / *Pcs.***	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**	**Cod.**	**€/Unid.**
3/16 x 32	100	2C08262	**1,16**	2C08362	**1,27**	2C08462	**2,10**	2C08562	**2,38**	2C08662	**2,55**
1/4 x 26	100	2C08263	**0,50**	2C08363	**0,53**	2C08463	**0,64**	2C08563	**0,76**	2C08663	**0,90**
5/16 x 22	100	2C08265	**0,56**	2C08365	**0,64**	2C08465	**0,74**	2C08565	**0,89**	2C08665	**1,07**
3/8 x 20	100	2C08266	**1,03**	2C08366	**1,06**	2C08466	**1,31**	2C08566	**1,53**	2C08666	**1,85**
7/16 x 18	100	2C08267	**1,26**	2C08367	**1,31**	2C08467	**1,60**	2C08567	**1,90**	2C08667	**2,32**
1/2 x 16	100	2C08268	**1,26**	2C08368	**1,31**	2C08468	**1,60**	2C08568	**1,90**	2C08668	**2,32**
9/16 x 16	50	2C08269	**3,16**	2C08369	**3,98**	2C08469	**5,19**	2C08569	**6,18**	2C08669	**7,57**
5/8 x 14	50	2C08270	**3,16**	2C08370	**3,98**	2C08470	**5,19**	2C08570	**6,18**	2C08670	**7,57**
3/4 x 12	25	2C08272	**4,08**	2C08372	**4,98**	2C08472	**6,42**	2C08572	**7,70**	2C08672	**9,23**
7/8 x 11	10	2C08274	**5,26**	2C08374	**6,96**	2C08474	**9,19**	2C08574	**11,07**	2C08674	**13,26**
1 x 10	10	2C08276	**5,26**	2C08376	**6,96**	2C08476	**8,49**	2C08576	**11,07**	2C08676	**13,26**

HERRAMIENTA PARA INSERTAR CON TOPE AJUSTABLE

INSERTING TOOL WITH LOCKING RING

APPAREIL DE POSE MANUEL



Nº	M - Mf	UNC / UNF / BSW / BSF	Uds. / *Pcs.*	Cod.	€/Unid.
2	**M 2,00 x 0,40** **M 2,20 x 0,45**	UNC Nr. 2	1	3C08002	**14,33**
3	**M 2,50 x 0,45**	-	1	3C08003	**14,33**
4	**M 3,00 x 0,50**	UNC/UNF Nr. 4	1	3C08004	**14,33**
5	**M 3,50 x 0,60**	UNC/UNF Nr. 6	1	3C08005	**14,33**
6	**M 4,00 x 0,70**	UNC/UNF Nr. 8	1	3C08006	**14,33**
7	-	BSW 3/16 UNC Nr.10	1	3C08007	**14,33**
8	**M 5,00 x 0,80**	UNC/UNF Nr.10 UNC Nr. 12	1	3C08008	**14,33**
9	**M 6,00 x 1,00**	UNC/UNF 1/4 BSW/BSF 1/4	1	3C08009	**14,33**
10	**M 7,00 x 1,00**	UNC/BSW 5/16	1	3C08010	**16,43**
11	**M 8,00 x 1,25** **M 8,00 x 1,00**	UNC/BSF 5/16	1	3C08011	**16,43**
12	**M 9,00 x 1,25** **M 9,00 x 1,00**	UNC 3/8 BSW/BSF 3/8	1	3C08012	**17,74**
13	**M 10,00 x 1,50** **M 10,00 x 1,00** **M 10,00 x 1,25**	UNF 3/8	1	3C08013	**17,74**
14	**M 11,00 x 1,50** **M 11,00 x 1,25**	UNC/UNF 7/16 BSW/BSF 7/16	1	3C08014	**20,58**
15	**M 12,00 x 1,75** **M 12,00 x 1,50** **M 12,00 x 1,25** **M 12,00 x 1,00**	UNC/UNF 1/2 BSW/BSF 1/2	1	3C08015	**24,77**
16	**M 14,00 x 2,00** **M 14,00 x 1,50**	UNC/UNF 9/16 BSW/BSF 9/16	1	3C08016	**24,77**
17	**M 14,00 x 1,25** **M 14,00 x 1,00**	-	1	3C08017	**24,77**
18	**M 16,00 x 2,00** **M 16,00 x 1,50**	UNC/UNF 5/8 BSW/BSF 5/8	1	3C08018	**27,36**
20	**M 18,00 x 2,50** **M 18,00 x 2,00** **M 18,00 x 1,50**	UNC 3/4 BSW/BSF 3/4	1	3C08020	**27,36**
21	**M 20,00 x 2,50** **M 20,00 x 2,00** **M 20,00 x 1,50**	UNF 3/4	1	3C08021	**27,36**
22	**M 22,00 x 2,50** **M 22,00 x 2,00** **M 22,00 x 1,50**	UNC/UNF 7/8 BSW/BSF 7/8	1	3C08022	**34,39**
23	**M 24,00 x 3,00** **M 24,00 x 2,00** **M 24,00 x 1,50**	UNC/UNF 1" BSW/BSF 1"	1	3C08023	**34,39**

M HERRAMIENTA PARA INSERTAR A MÁQUINA
MACHINE INSERTING TOOL
APPAREIL DE POSE À MACHINE



D Ø x P (mm)	L1 (mm)		(")	Uds. / *Pcs.*	Cod.	€/Unid.
M 3,00 x 0,50	46	6	1/4	1	3C08070	**21,14**
M 4,00 x 0,70	56	7	1/4	1	3C08071	**21,14**
M 5,00 x 0,80	62	8	1/4	1	3C08072	**21,14**
M 6,00 x 1,00	76	10	1/4	1	3C08073	**21,14**
M 8,00 x 1,25	85	12	1/4	1	3C08074	**25,75**
M 10,00 x 1,50	96	14	1/4	1	3C08075	**28,45**
M 12,00 x 1,75	107	16	1/4	1	3C08076	**31,45**

M HERRAMIENTA PARA INSERTAR
INSERTING TOOL
APPAREIL DE POSE À MACHINE



Ø Nominal Ø x Paso / Ø Nominal Ø x Paso	Uds. / *Pcs.*	⬡	Cod.	€/Unid.
M - Mf				
M 26,00 x 1,50	1	1/2"	3C08024	**35,54**
M 27,00 x 3,00	1	1/2"	3C08025	**35,53**
M 27,00 x 2,00	1	1/2"	3C08026	**35,54**
M 27,00 x 1,50	1	1/2"	3C08027	**35,54**
M 28,00 x 1,50	1	1/2"	3C08028	**35,54**
M 30,00 x 3,50	1	1/2"	3C08029	**42,64**
M 30,00 x 2,00	1	1/2"	3C08030	**42,64**
M 30,00 x 1,50	1	1/2"	3C08031	**42,65**
M 33,00 x 3,50	1	1/2"	3C08032	**49,75**
M 33,00 x 2,00	1	1/2"	3C08033	**49,75**
M 36,00 x 4,00	1	1/2"	3C08034	**49,75**
M 36,00 x 3,00	1	1/2"	3C08035	**49,75**
M 36,00 x 2,00	1	1/2"	3C08036	**49,75**
M 36,00 x 1,50	1	1/2"	3C08037	**49,75**
UNC				
1.1/8 x 7	1	1/2"	3C08050	**42,64**
1.1/4 x 7	1	1/2"	3C08051	**42,64**
1.3/8 x 6	1	1/2"	3C08052	**49,75**
1.1/2 x 6	1	1/2"	3C08053	**49,75**
UNF				
1.1/8 x 7	1	1/2"	3C08060	**42,64**
1.1/4 x 7	1	1/2"	3C08061	**42,64**
1.3/8 x 6	1	1/2"	3C08062	**49,75**
1.1/2 x 6	1	1/2"	3C08063	**49,75**
G (BSP)				
1/8 x 28	1	1/4"	3C08080	**21,33**
1/4 x 19	1	1/4"	3C08081	**21,33**
3/8 x 19	1	1/4"	3C08082	**24,88**
1/2 x 14	1	1/4"	3C08083	**28,43**
5/8 x 14	1	1/2"	3C08084	**35,54**
3/4 x 14	1	1/2"	3C08085	**35,54**
7/8 x 14	1	1/2"	3C08086	**49,75**
1" x 11	1	1/2"	3C08087	**49,75**

HERRAMIENTA ROMPE ARRASTRE
TANG BREAK TOOL
RUPTEUR



Nº	M - Mf	UNC / UNF / BSW / BSF	Uds. / *Pcs.*	Cod.	€/Unid.
2	M 2,00 x 0,40 M 2,20 x 0,45	UNC Nº 2	1	3C07002	**6,11**
3	M 2,50 x 0,45	-	1	3C07003	**6,20**
4	M 3,00 x 0,50	UNC/UNF Nº 4	1	3C07004	**6,20**
5	M 3,50 x 0,60	UNC/UNF Nº 6	1	3C07005	**6,20**
6	M 4,00 x 0,70	UNC/UNF Nº 8	1	3C07006	**6,20**
8	M 5,00 x 0,80	UNC/UNF Nº10 UNC Nº12	1	3C07008	**6,20**
9	M 6,00 x 1,00	UNC/UNF 1/4 BSW/BSF 1/4	1	3C07009	**6,20**
11	M 7,00 x 1,00 M 8,00 x 1,00 M 8,00 x 1,25	UNC/UNF 5/16 BSW/BSF 5/16	1	3C07011	**6,88**
12	M 9,00 x 1,25 M 9,00 x 1,00	UNC 3/8 BSW/BSF 3/8	1	3C07012	**6,88**
13	M 10,00 x 1,50 M 10,00 x 1,00 M 10,00 x 1,25	UNF 3/8	1	3C07013	**8,33**
14	M 11,00 x 1,50 M 11,00 x 1,25	UNC/UNF 7/16 BSW/BSF 7/16	1	3C07014	**8,33**
15	M 12,00 x 1,75 M 12,00 x 1,50 M 12,00 x 1,25 M 12,00 x 1,00	UNC/UNF 1/2 BSW/BSF 1/2	1	3C07015	**8,33**

HERRAMIENTA EXTRACTORA
EXTRACTING TOOL
EXTRACTEUR



Nº	Métrica / Métrica	Pulgadas / Inches	Uds. / *Pcs.*	Cod.	€/Unid.
2	M 3 - M 10	3/16 - 3/8	1	3C07052	**30,97**
3	M 11 - M 24	3/8 - 1	1	3C07053	**37,54**

M y Mf KITS REPARADORES DE ROSCA

THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
M 2,00 x 0,40	2,1 mm	Nº 2	Nº 2	20	1	4C04001	**54,37**
M 2,50 x 0,45	2,6 mm	Nº 3	Nº 3	20	1	4C04003	**54,37**
M 3,00 x 0,50	3,2 mm	Nº 4	Nº 4	20	1	4C04005	**52,78**
M 3,50 x 0,60	3,7 mm	Nº 5	Nº 5	20	1	4C04006	**54,37**
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04007	**49,29**
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04009	**51,25**
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04010	**55,21**
M 7,00 x 1,00	7,3 mm	Nº 10	Nº 11	20	1	4C04011	**74,26**
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04012	**70,23**
M 8,00 x 1,00	8,3 mm	Nº 11	Nº 11	20	1	4C04013	**74,26**
M 9,00 x 1,25	9,3 mm	Nº 12	Nº 12	15	1	4C04014	**84,82**
M 10,00 x 1,50	10,4 mm	Nº 13	Nº 13	15	1	4C04016	**75,17**
M 10,00 x 1,25	10,3 mm	Nº 13	Nº 13	15	1	4C04017	**79,47**
M 10,00 x 1,00	10,3 mm	Nº 13	Nº 13	15	1	4C04018	**79,47**
M 11,00 x 1,50	11,4 mm	Nº 14	Nº 14	10	1	4C04019	**91,78**
M 12,00 x 1,75	12,4 mm	Nº 15	Nº 15	10	1	4C04021	**84,27**
M 12,00 x 1,50	12,4 mm	Nº 15	Nº 15	10	1	4C04022	**89,10**
M 12,00 x 1,25	12,3 mm	Nº 15	Nº 15	10	1	4C04023	**89,10**
M 12,00 x 1,00	12,3 mm	Nº 15	Nº 15	10	1	4C04024	**91,78**
M 14,00 x 2,00		Nº 16		10	1	4C04028	**95,04**
M 14,00 x 1,50		Nº 16		10	1	4C04029	**100,49**
M 14,00 x 1,25		Nº 17		10	1	4C04030	**100,49**
M 14,00 x 1,00		Nº 17		10	1	4C04031	**103,50**
M 16,00 x 2,00		Nº 18		10	1	4C04032	**115,20**
M 16,00 x 1,50		Nº 18		10	1	4C04033	**121,80**
M 18,00 x 2,50		Nº 20		5	1	4C04034	**149,02**
M 18,00 x 2,00		Nº 20		5	1	4C04035	**149,02**
M 18,00 x 1,50		Nº 20		5	1	4C04036	**149,02**
M 20,00 x 2,50		Nº 21		5	1	4C04037	**161,20**
M 20,00 x 2,00		Nº 21		5	1	4C04038	**161,20**
M 20,00 x 1,50		Nº 21		5	1	4C04039	**161,20**
M 22,00 x 2,50		Nº 22		5	1	4C04040	**185,60**
M 22,00 x 2,00		Nº 22		5	1	4C04041	**185,60**
M 22,00 x 1,50		Nº 22		5	1	4C04042	**185,60**
M 24,00 x 3,00		Nº 23		5	1	4C04043	**214,05**
M 24,00 x 2,00		Nº 23		5	1	4C04044	**214,05**
M 24,00 x 1,50		Nº 23		5	1	4C04045	**214,05**

M y Mf KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



		x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
M 26,00 x 1,50	3C08024	10	1	4C04049	**454,80**
M 27,00 x 3,00	3C08025	10	1	4C04050	**454,80**
M 27,00 x 2,00	3C08026	10	1	4C04051	**454,80**
M 27,00 x 1,50	3C08027	10	1	4C04052	**454,80**
M 28,00 x 1,50	3C08028	10	1	4C04053	**518,23**
M 30,00 x 3,50	3C08029	10	1	4C04054	**542,21**
M 30,00 x 2,00	3C08030	10	1	4C04055	**542,21**
M 30,00 x 1,50	3C08031	10	1	4C04056	**542,21**
M 33,00 x 3,50	3C08032	10	1	4C04057	**566,19**
M 33,00 x 2,00	3C08033	10	1	4C04058	**566,19**
M 36,00 x 4,00	3C08034	10	1	4C04060	**615,98**
M 36,00 x 3,00	3C08035	10	1	4C04061	**615,98**
M 36,00 x 2,00	3C08036	10	1	4C04062	**615,98**
M 36,00 x 1,50	3C08037	10	1	4C04063	**615,98**
M 39.00 x 4.00	3C08038	10	1	4C04231 NEW	**879,42**
M 39.00 x 3.00	3C08039	10	1	4C04232	**767,15**
M 40.00 x 3.00	3C08040	10	1	4C04233 NEW	**879,42**
M 42.00 x 4.50	3C08041	10	1	4C04234	**1.178,79**
M 42.00 x 3.00	3C08042	10	1	4C04235 NEW	**879,42**
M 45.00 x 4.50	3C08043	10	1	4C04236	**1.216,22**
M 45.00 x 3.00	3C08044	10	1	4C04237 NEW	**1.103,95**
M 48.00 x 5.00	3C08045	10	1	4C04238	**1.487,32**
M 48.00 x 3.00	3C08046	10	1	4C04239 NEW	**1.103,95**
M 50.00 x 3.00	3C08047	10	1	4C04240	**1.178,79**
M 52.00 x 5.00	3C08048	10	1	4C04241 NEW	**1.852,39**
M 52.00 x 3.00	3C08049	10	1	4C04242	**1.590,44**

*Consultar disponibilidad / *Request availability* / *Consulter le disponibilité*

KIT PARA LAS ROSCAS DE LAS BUJÍAS
INSERTING TOOL
KITS DE RÉPARATION DE FILETAGE POUR BOUGIES D´ALLUMAGE



		8,40 mm	12,40 mm	16,40 mm	Uds. / *Pcs.*	Cod.	€/Unid.
M 14 x 1,25	Nº 17	5	5	5	1	4C04096	**125,47**

MACHOS SPARK-PLUG / *STI-SPARK PLUG TAPS* / *TARAUDS STI ÉTAGÉS*

UNC KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
Nr. 2 x 56	2,4 mm	Nº 2	Nº 2	20	1	4C04100	**75,54**
Nr. 4 x 40	3,1 mm	Nº 4	Nº 4	20	1	4C04101	**68,53**
Nr. 5 x 40	3,4 mm	Nº 4	Nº 4	20	1	4C04106	**68,53**
Nr. 6 x 32	3,8 mm	Nº 5	Nº 5	20	1	4C04102	**68,53**
Nr. 8 x 32	4,4 mm	Nº 6	Nº 6	20	1	4C04103	**68,53**
Nr. 10 x 24	5,2 mm	Nº 7	Nº 6	20	1	4C04104	**68,53**
Nr. 12 x 24	5,8 mm	Nº 8	Nº 8	20	1	4C04105	**68,53**
1/4 x 20	6,7 mm	Nº 9	Nº 9	20	1	4C04107	**61,74**
5/16 x 18	8,3 mm	Nº 10	Nº 10	20	1	4C04108	**72,94**
3/8 x 16	9,9 mm	Nº 12	Nº 12	15	1	4C04109	**77,99**
7/16 x 14	11,6 mm	Nº 14	Nº 14	10	1	4C04110	**87,54**
1/2 x 13	13,0 mm	Nº 15	Nº 15	10	1	4C04111	**96,09**
9/16 x 12		Nº 16		10	1	4C04112	**128,29**
5/8 x 11		Nº 18		10	1	4C04113	**128,29**
3/4 x 10		Nº 20		5	1	4C04114	**163,51**
7/8 x 9		Nº 22		5	1	4C04115	**198,72**
1 x 8		Nº 23		4	1	4C04116	**189,42**

UNC KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



		x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
1.1/8 x 7	3C08050	10	1	4C04117	**483,22**
1.1/4 x 7	3C08051	10	1	4C04118	**537,59**
1.3/8 x 6	3C08052	10	1	4C04119	**646,32**
1.1/2 x 6	3C08053	10	1	4C04135	**753,03**

UNF

KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
Nr. 4 x 48	3,0 mm	Nº 4	Nº 4	20	1	4C04120	**69,20**
Nr. 6 x 40	3,8 mm	Nº 5	Nº 5	20	1	4C04121	**69,20**
Nr. 8 x 36	4,4 mm	Nº 6	Nº 6	20	1	4C04122	**69,20**
Nr. 10 x 32	5,1 mm	Nº 8	Nº 8	20	1	4C04123	**69,20**
1/4 x 28	6,7 mm	Nº 9	Nº 9	20	1	4C04125	**62,35**
5/16 x 24	8,3 mm	Nº 11	Nº 11	20	1	4C04126	**76,29**
3/8 x 24	9,8 mm	Nº 13	Nº 13	15	1	4C04127	**81,57**
7/16 x 20	11,5 mm	Nº 14	Nº 14	10	1	4C04128	**91,56**
1/2 x 20	13,0 mm	Nº 15	Nº 15	10	1	4C04129	**100,50**
9/16 x 18		Nº 16		10	1	4C04130	**134,18**
5/8 x 18		Nº 18		10	1	4C04131	**134,18**
3/4 x 16		Nº 21		5	1	4C04132	**171,02**
7/8 x 14		Nº 22		5	1	4C04133	**207,85**
1 x 12		Nº 23		4	1	4C04134	**198,11**

UNF

KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



		x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
1.1/8 x 12	3C08060	10	1	4C04136	**483,22**
1.1/4 x 12	3C08061	10	1	4C04137	**537,59**
1.3/8 x 12	3C08062	10	1	4C04138	**646,32**
1.1/2 x 12	3C08063	10	1	4C04139	**753,03**

BSW KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
1/8 x 40	3,4 mm	Nº 4	Nº 4	20	1	4C04141	**68,53**
3/16 x 24	5,0 mm	Nº 8	Nº 8	20	1	4C04142	**68,53**
1/4 x 20	6,7 mm	Nº 9	Nº 9	20	1	4C04143	**61,74**
5/16 x 18	8,3 mm	Nº 10	Nº 11	20	1	4C04144	**75,54**
3/8 x 16	9,9 mm	Nº 12	Nº 12	15	1	4C04145	**80,77**
7/16 x 14	11,5 mm	Nº 14	Nº 14	10	1	4C04146	**90,66**
1/2 x 12	13,0 mm	Nº 15	Nº 15	10	1	4C04147	**99,52**
9/16 x 12		Nº 16		10	1	4C04148	**132,87**
5/8 x 11		Nº 18		10	1	4C04149	**132,87**
3/4 x 10		Nº 20		5	1	4C04150	**169,35**
7/8 x 9		Nº 22		5	1	4C04151	**205,81**
1 x 8		Nº 23		4	1	4C04152	**196,17**

BSF KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
3/16 x 32	5,0 mm	Nº 8	Nº 6	20	1	4C04162	**68,53**
1/4 x 26	6,6 mm	Nº 9	Nº 9	20	1	4C04163	**61,74**
5/16 x 22	8,3 mm	Nº 11	Nº 11	20	1	4C04165	**75,54**
3/8 x 20	9,9 mm	Nº 12	Nº 13	15	1	4C04166	**80,77**
7/16 x 18	11,5 mm	Nº 14	Nº 14	10	1	4C04167	**90,66**
1/2 x 16	13,0 mm	Nº 15	Nº 15	10	1	4C04168	**99,52**
9/16 x 16		Nº 16		10	1	4C04169	**132,87**
5/8 x 14		Nº 18		10	1	4C04170	**132,87**
3/4 x 12		Nº 20		5	1	4C04172	**169,35**
7/8 x 11		Nº 22		5	1	4C04174	**205,81**
1 x 10		Nº 23		4	1	4C04176	**196,30**

G(BSP) KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE



		x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
1/8 x 28	3C08080	10	1	4C04190	**121,89**
1/4 x 19	3C08081	10	1	4C04191	**128,26**
3/8 x 19	3C08082	10	1	4C04192	**142,30**
1/2 x 14	3C08083	10	1	4C04193	**172,66**
5/8 x 14	3C08084	10	1	4C04194	**406,02**
3/4 x 14	3C08085	10	1	4C04195	**406,02**
7/8 x 14	3C08086	10	1	4C04196	**557,80**
1 x 11	3C08087	10	1	4C04197	**557,80**

M REPARADOR DE ROSCA CON ANCLAJE DE 1/4"
1/4" SHANK REPAIR KIT
KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4"



CLICK & DRILL

				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04307	**49,36**
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04309	**51,33**
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04310	**55,29**
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04312	**70,33**

Hasta fin de existencias / *Until end of stock / Jusqu´à épuisement des stocks*

KIT REPARADOR DE ROSCADO PARA TALLER
THREAD REPAIR WORKSHOP KITS
KITS DE RÉPARATION DE FILETAGE POUR ATÉLIERS



				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
M5-M 12					1	4C04081	**378,94**
M 5.00 x 0.80	5,2 mm	Nº 8	Nº 8	25			
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M6-M 14 x 1.25 /NP					1	4C04082	**420,94**
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M 14.00 x 1.25		Nº 17		10			
M 6 - M 14 x 1.25 / PT (*Machos Plug - Punta Piloto / **Plug Taps - Pilot Nose)**					1	4C04083	**434,11**
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M 14.00 x 1.25*		Nº 17		10			
UNC 1/4 - 1/2"					1	4C04184	**473,56**
UNC 1/4 x 20	6,7 mm	Nº 9	Nº 9	25			
UNC 5/16 x 18	8,3 mm	Nº 10	Nº 11	25			
UNC 3/8 x 16	9,9 mm	Nº 12	Nº 12	25			
UNC 7/16 x 14	11,6 mm	Nº 14	Nº 14	10			
UNC 1/2 x 13	13,0 mm	Nº 15	Nº 15	10			
UNF 1/4 - 1/2"					1	4C04185	**473,56**
UNF 1/4 x 28	6,7 mm	Nº 9	Nº 9	25			
UNF 5/16 x 24	8,3 mm	Nº 11	Nº 11	25			
UNF 3/8 x 24	9,8 mm	Nº 13	Nº 13	25			
UNF 7/16 x 20	11,5 mm	Nº 14	Nº 14	10			
UNF 1/2 x 20	13,0 mm	Nº 15	Nº 15	10			
BSW 1/4 - 1/2"					1	4C04186	**473,56**
BSW 1/4 x 20	6,7 mm	Nº 9	Nº 9	25			
BSW 5/16 x 18	8,3 mm	Nº 10	Nº 11	25			
BSW 3/8 x 1 6	9,9 mm	Nº 12	Nº 12	25			
BSW 7/16 x 14	11,5 mm	Nº 14	Nº 14	10			
BSW 1/2 x 12	13,0 mm	Nº 15	Nº 15	10			
BSF 1/4 - 1/2"					1	4C04187*	**473,56**
BSF 1/4 x 26	6,6 mm	Nº 9	Nº 9	25			
BSF 5/16 x 22	8,3 mm	Nº 11	Nº 11	25			
BSF 3/8 x 20	9,9 mm	Nº 12	Nº 12	25			
BSF 7/16 x 18	11,5 mm	Nº 14	Nº 14	10			
BSF 1/2 x 16		Nº 15		10			

*Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

M KIT CON HERRAMIENTAS PARA INSERTAR A MÁQUINA
WITH MACHINE INSERTING TOOL
COFFRET RÉPARATION AVEC DES OUTILS À MACHINE



FORM B				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
M 3,00 x 0,50	3,2 mm	M 3	Nº 4	20	1	4C04070	**62,52**
M 4,00 x 0,70	4,2 mm	M 4	Nº 6	20	1	4C04071	**62,52**
M 5,00 x 0,80	5,2 mm	M 5	Nº 8	20	1	4C04072	**64,69**
M 6,00 x 1,00	6,3 mm	M 6	Nº 9	20	1	4C04073	**68,72**
M 8,00 x 1,25	8,3 mm	M 7	Nº 11	20	1	4C04074	**88,13**
M 10,00 x 1,50	10,4 mm	M 8	Nº 13	15	1	4C04075	**95,14**
M 12,00 x 1,75	12,4 mm	M 9	Nº 15	10	1	4C04076	**106,44**

M KIT CON HERRAMIENTAS PARA INSERTAR A MÁQUINA
WITH MACHINE INSERTING TOOL
COFFRET RÉPARATION AVEC DES OUTILS À MACHINE



FORM B				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
M5 - M12					1	4C04087	**471,53**
M 5,00 x 0,80	5,2 mm	M 5	Nº 8	25			
M 6,00 x 1,00	6,3 mm	M 6	Nº 9	25			
M 8,00 x 1,25	8,3 mm	M 8	Nº 11	25			
M 10,00 x 1,50	10,4 mm	M 10	Nº 13	25			
M 12,00 x 1,75	12,4 mm	M 12	Nº 15	10			

ACCESSORIES-ACCESSOIRES





ACCESORIOS

SESA TOOLS®

PORTABROCAS PERCUSIÓN CIERRE RÁPIDO
PERCUSSIVE DRILL AND FAST LOCK DRILL CHUCK
PERCEUSES À PERCUSSION EN FERMETURE RAPIDE


V021220


V021221


V023824

			LONGITUD / *LENGHT*					
Capacidad *Range* (mm)	**Acople / *Mount***	**Ø ext. (mm)**	**Abierto / *Opened* (mm)**	**Cerrado / *Closed* (mm)**	**Peso *Weight* (kg)**	**Uds. *Pcs.***	**Cod.**	**€/Unid.**
2 - 13	1/2 - 20 UNF	43	62	75	0,250	1	V021220	**20,18**
2 - 13	1/2 - 20 UNF	43	62	75	0,280	1	V021221	**22,70**
1,50 - 13	3/8 - 24 UNF	43	62	72	0,290	1	V023824	**31,94**

PORTABROCAS DE LLAVE
KEY TYPE CHUCK • MANDRIN FERMETURE AVEC CLÉ





			LONGITUD / *LENGHT*					
Capacidad *Range* (mm)	**Acople / *Mount***	**Ø ext. (mm)**	**Abierto / *Opened* (mm)**	**Cerrado / *Closed* (mm)**	**Peso *Weight* (kg)**	**Uds. *Pcs.***	**Cod.**	**€/Unid.**
1,50 - 13	1/2 - 20 UNF	42	57	70	0,34	1	V021520	**41,72**

LLAVE *SINGLE KEY • CLÉ DE RECHANGE*

Uds. / *Pcs.*	**Cod.**	**€/Unid.**
1	V031520	**7,07**



PORTABROCAS ROTACIÓN CON CIERRE RÁPIDO
FAST LOCK DRILL CHUCK
MANDRIN FÉRMÉTURE RAPIDE ET AUTOAJUTABLE



			LONGITUD / *LENGHT*						
Capacidad *Range* **(mm)**	**Acople** / *Mount*	**Ø ext. (mm)**	**Abierto** / *Opened* **(mm)**	**Cerrado** / *Closed* **(mm)**	**Peso** *Weight* **(kg)**	**Uds.** *Pcs.*	**Precisión** *Precision* **(mm)**	**Cod.**	**€/Unid.**
1 - 13	1/2 - 20 UNF	44	85	95	0,73	1	0,20	V0131220	**65,29**
1 - 16	B - 16	51	102	115	1,09	1	0,07	V016116	**72,17**
1 - 16	B - 18	51	102	115	1,08	1	0,07	V018116	**72,17**
5 - 20	B - 22	57	105	129	1,53	1	0,18	V022520	**116,32**

PORTAFRESAS CONO MORSE
BUR HOLDER MORSE TAPER • QUEUE CONIQUE



Ø (mm)	**Uds.** / *Pcs.*	**Cod.**	**€/Unid.**
C.M. 2 + accesorios / *C.M. 2 + accessories*	1	18003	**343,24**
C.M. 3 + accesorios / *C.M. 2 + accessories*	1	18025	**343,24**

Portafresas con entrada para refrigerante para máquinas con base electromagnética SIN AMARRES WELDON. Permite el uso de estas fresas en tornos, fresadoras y taladros.
Tool holders with internal cooling system for electromagnetic drilling machines without WELDON SHANK. It alows the use of WELDON SHANK milling cutters on lathes, milling machines and drill machines. / Porte-fraises à réfrigération interne pour machines à base électromagnétique SANS ANCRAGE WELDON. Pour l'utilisation de fraises à ancrage Weldon sur des tours, fraiseuses ou perceuses.

ESPIGAS TEMPLADAS Y RECTIFICADAS
HARDENED AND GROUNDED TAPER SHANK ARBORS
ARBRES DE MONTAGE TREMPÉS ET RECTIFIÉS

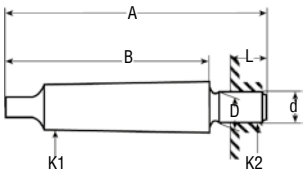


DIN 228 **CONO MORSE**
DIN 238 **ESPIGA**

Cono Morse / *Morse Cone*	Espiga / *Arbor*	L (mm)	Peso / *Weight* (Kg)	Uds. / *Pcs.*	Cod.	€/Unid.
1	B - 10	86	0,050	1	V2001B10	**8,81**
1	B - 12	88	0,060	1	V2001B12	**8,81**
1	B - 16	99	0,090	1	V2001B16	**8,81**
1	B - 18	107	0,110	1	V2001B18	**8,81**
2	B - 10	105	0,130	1	V2002B10	**9,57**
2	B - 12	106	0,140	1	V2002B12	**9,40**
2	B - 16	112	0,160	1	V2002B16	**9,40**
2	B - 18	119	0,185	1	V2002B18	**9,40**
3	B - 12	125	0,280	1	V2003B12	**12,25**
3	B - 16	130	0,300	1	V2003B16	**12,25**
3	B - 18	138	0,330	1	V2003B18	**12,25**
3	B - 22	147	0,390	1	V2003B22	**12,25**
4	B - 16	156	0,615	1	V2004B16	**19,06**
4	B - 18	164	0,635	1	V2004B18	**19,06**
4	B - 22	173	0,700	1	V2004B22	**19,06**
5	B - 18	200	1,570	1	V2005B18	**31,65**

Para medidas no tarifadas consultar precio y disponibilidad / *Check prices and availability for no tarified articles* / *Demandez pour des produits non tarifiqués*

DIMENSIONES APROXIMADAS ESPIGAS DE ASIENTO
SLEEVES MEASURES
DIMENSIONS DES DOUILLES DE RÉDUCTION



Cono Morse *Morse Cone* DIN 228 (K-1)	Cono interior del portabrocas *Drill Chuck Internal Cone* DIN 228 K-2)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
1	B - 10	86	65,5	10,094	9,4	14,5
1	B - 12	88	65,5	12,065	11,1	18,5
1	B - 16	99	65,5	15,733	14,5	24,0
1	B - 18	107	65,5	17,780	16,2	32,0
2	B - 10	105	80	10,094	9,4	14,5
2	B - 12	106	80	12,065	11,1	18,5
2	B - 16	112	80	15,733	14,5	24,0
2	B - 18	119	80	17,780	16,2	32,0
3	B - 12	125	99	12,065	11,1	18,5
3	B - 16	130	99	15,733	14,5	24,0
3	B - 18	138	99	17,780	16,2	32,0
4	B - 16	156	124	15,733	14,5	24,0
4	B - 18	164	124	17,780	16,2	32,0
5	B - 16	198	156	15,733	14,5	24,0
5	B - 18	198	156	17,780	16,2	32,0

CASQUILLOS REDUCTORES TEMPLADOS Y RECTIFICADOS
HARDENED AND GROUND SLEEVES
DOUILLES DE RÉDUCTION TREMPÉS ET RECTIFIÉS

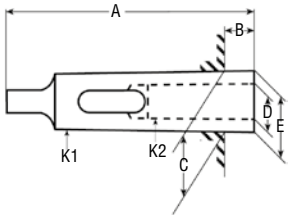
DIN 2185



Exterior / *External*	Interior / *Internal*	L (mm)	Peso / *Weight* (Kg)	Uds. / *Pcs.*	Cod.	€/Unid.
2	1	92	0,090	1	V1000021	**18,20**
3	1	99	0,205	1	V1000031	**19,51**
3	2	112	0,180	1	V1000032	**19,51**
3*	2	195	0,470	1	V1000L32	**39,00**
4	1	124	0,500	1	V1000041	**22,75**
4	2	124	0,430	1	V1000042	**22,75**
4	3	140	0,385	1	V1000043	**22,75**
5	1	155	1,400	1	V1000051	**55,28**
5	2	157	1,340	1	V1000052	**55,28**
5	3	157	1,150	1	V1000053	**63,94**
5	4	170	1,010	1	V1000054	**69,17**
5*	4	300	2,071	1	V1000L54	**138,34**
6	3	218	3,790	1	V1000063	**109,01**
6	4	218	3,450	1	V1000064	**121,06**
6	5	218	3,450	1	V1000065	**125,89**

* Casquillos serie larga / *Long series* / *Série longue*

DIMENSIONES APROXIMADAS CASQUILLOS REDUCTORES
TAPER SHANK ARBOR MEASURES
DIMENSIONS DES ARBRES DE MONTAGE



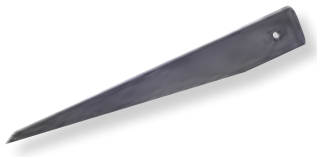
CONO MORSE / *MORSE CONE*						
Exterior / *External* (K-1)	Interior / *Internal* (K-2)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
2	1	92	17,0	17,780	12,065	18,6
3	1	99	5,0	23,825	12,065	24,1
3	2	112	18,0	23,825	17,780	24,7
4	1	124	6,5	31,267	12,065	31,6
4	2	124	6,5	31,267	17,780	31,6
4	3	140	22,5	31,267	23,825	32,4
5	1	156	6,5	44,399	12,065	44,7
5	2	156	6,5	44,399	17,780	44,7
5	3	156	6,5	44,399	23,825	44,7
5	4	170	21,5	44,399	31,267	45,5
6	2	218	8,0	63,348	17,780	63,8
6	3	218	8,0	63,348	23,825	63,8
6	4	218	8,0	63,348	31,267	63,8
6	5	218	8,0	63,348	44,399	63,8

CASQUILLOS AUMENTADORES TEMPLADOS Y RECTIFICADOS
HARDENED AND GROUNDED EXTENSION SLEEVES
DOUILLES RALLONGÉS TREMPÉS ET RECTIFIÉS



Exterior / *External*	Interior / *Internal*	L (mm)	Peso / *Weight* (Kg)	Uds. / Pcs.	Cod.	€/Unid.
2	3	195	0,69	1	V1L00032	**46,81**
3	4	239	1,54	1	V1L00043	**53,49**

CUÑAS PARA CASQUILLOS
EXTRACTION WEDGE • ÉCROUS D´EXTRACTION



DIN 317

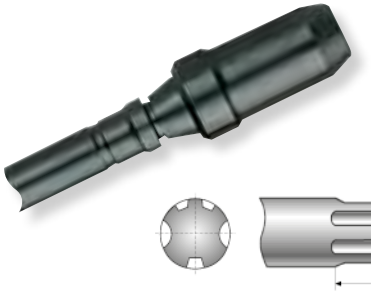
Utilidad / *Utility*	Uds. / *Pcs.*	Cod.	€/Unid.
Para Conos Morse Nº 1 y Nº 2 / *For Morse tapper Nº 1 y Nº 2*	1	VC31712	**7,90**
Para Conos Morse Nº 3 / *For Morse tapper Nº 3*	1	VC31703	**12,97**
Para Conos Morse Nº 4 y Nº 5 / *For Morse tapper Nº 4 y Nº 5*	1	VC31704	**16,71**

TOPES DE PROFUNDIDAD PARA BROCAS
DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE



Ø (mm)	Gama de medidas / *Range* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,5	De 2,0 a 3,5	1	Y10035	**3,73**
5,0	De 4,0 a 5,0	1	Y10050	**4,27**
6,5	De 5,5 a 6,5	1	Y10065	**5,07**
8,0	De 7,0 a 8,0	1	Y10080	**5,07**
10,0	De 8,5 a 10,0	1	Y10100	**5,07**
12,0	De 10,5 a 12,0	1	Y10120	**5,07**

CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS
CONVERSOR FROM SDS-MAX SHANK TO SDS-PLUS
CONVERTEUR DE SDS-MAX A SDS-PLUS



L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
225	1	1CO2250	**131,97**

Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch.
Drills with SDS-MAX, HILTI Y-Groove and Bosch License system
Perceuse avec systéme SDS-MAX, HILTI Y-Groove et Bosch Licence.

ELEMENTOS DE UNIÓN Y ÚTILES DE SUJECCIÓN
ADAPTERS • ADAPTATEURS



V945212
V945024

264 000 001

V945138

V930001

V931021

V931121
V935816

Conversión / *System*	Uds. / *Pcs.*	Cod.	€/Unid.
SDS-PLUS a 1/2" - 20 H (M6 Izq.) / *From SDS-PLUS to Thread 1/2" - 20 tpi (M6 LH)*	1	V945212	**13,37**
SDS-PLUS a 3/8" - 24 H (M4 Izq.) / *From SDS-PLUS to Thread 3/8" - 24 tpi (M6 LH)*	1	V945024	**13,37**
TORNILLO REPUESTO M6 Izq. / *Replacement Screw M6 LH*	1	V945406	**1,59**
TORNILLO REPUESTO M4 Izq. / *Replacement Screw M4 LH*	1	V945404	**1,59**
SDS-plus a hexag. 1/4" / *From SDS-PLUS to 1/4"*	1	264 000 001	**26,21**
HEXAGONAL 1/4" a 3/8" - 24 H / *From HEXAGONAL 1/4" to thread 3/8" - 24tpi*	1	V945138	**5,35**
Rosca 3/8" - 24 H / *Thread 3/8" 24 tpi*	1	V930001	**2,00**
Rosca 3/8" - 24 H a 1/2" - 20 H / *From Thread 3/8" 24 tpi to Thread 1/2" 20 tpi*	1	V931021	**4,45**
Rosca 1/2" - 20 H a 3/8" - 24 H / *From Thread 1/2 - 20 tpi to 3/8 - 24 tpi*	1	V931121	**7,64**
Rosca 5/8" - 16 H a 1/2" - 20 H / *Thread 5/8" - 16tpi to 1/2" - 20 tpi*	1	V935816	**4,45**

ÚTILES DE SUJECCIÓN CONJUNTO DE 52 PIEZAS
CLAMPING TOOLS - 52 PCS. KIT • OUTILS DE FIXATION - 52 PCS.



Ref.	Rosca / *Thread*	a	Uds. / *Pcs.*	Cod.	€/Unid.
RH. M - 10	M 10	12,00 mm	1	V40RHM10	**180,53**
RH. M - 12	M 12	14,00 mm	1	V40RHM12	**187,22**
RH. M - 14	M 14	16,00 mm	1	V40RHM14	**199,25**
RH. M - 16	M 16	18,00 mm	1	V40RHM16	**227,33**

Hasta fin de existencias / *Until end of stock / Jusqu´à épuisement des stocks*

MARCADOR INDUSTRIAL INDELEBLE TEXPEN

STEEL TIP PAINT MARQUER • MARQUEUR MÉTAL PERMANENT



DYKEM

Contenido / *Content*	Uds. / *Pcs.*	Cod.	Color	€/Unid.
26 ml	12	K38011		**9,31**
26 ml	12	K38021		**9,31**
26 ml	12	K38031		**9,31**
26 ml	12	K38041		**9,31**
26 ml	12	K38051		**9,31**

Marcador industrial indeleble / *Industrial permanent marker* / *Marqueur permanent industriel*
Válido para superficies rugosas y grasientas / *Useful for rough surfaces* / *Utilisable sur surfaces rugueuses ou grasses*
Tubo rígido de fácil manejo / *Rigid tube for a easy use* / *Tube rigide pour une manipulation aisée*
Resistente a caídas y golpes / *Strong to falls* / *Robuste, anti-chocs*







MARCADOR CELULOSA INDELEBLE BRITEMARK
VALVE ACTION PAINT MARQUER • MARQUEUR PERMANENT

DYKEM

Contenido / *Content*	Uds. / *Pcs.*	Cod.	Color	€/Unid.
26 ml	12	K37011		**8,25**
26 ml	12	K37021		**8,25**
26 ml	12	K37031		**8,25**
26 ml	12	K37041		**8,25**
26 ml	12	K37051		**8,25**
26 ml	12	K37061		**8,25**



ACEITE DE CORTE Y ROSCADO
CUTTING AND TAPPING FLUID
FLUIDE POUR FILETAGE ET DE COUP

Contenido / *Content*	Uds.	Cod	€/Unid.
400 ml	1	1AC4000	**18,19**

Metales duros y blandos. Alto poder refirgerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrision capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.



NOVEDADES N

- ESTUCHES brocas pala

NEW FEATURES N

- ***Flat drill bit SETS***

NOUVEAUTÉS N

- ***FCOFFRETS méche plate***



HEXAGONAL-HEXAGONAL





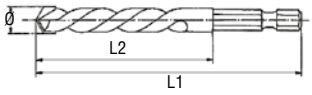
HEXAGONAL

SESA TOOLS®

JX PORCELANATO
JX PORCELAIN • JX GRÈS CÉRAMIQUE





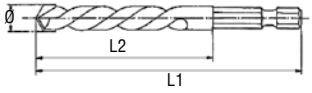


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4	95	50	1	1102010495	**7,41**
5	95	50	1	1102010595	**8,42**
6	100	55	1	1102016100	**9,44**

MULTIUSOS
MULTIPURPOSE • MULTI USAGE





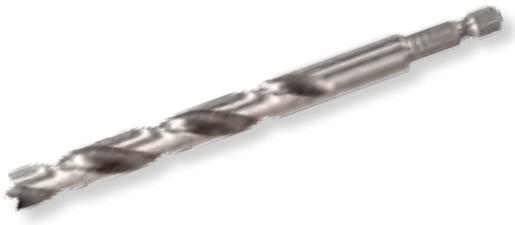


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
4	85	35	1	1HX0040	**5,97**
5	90	40	1	1HX0050	**6,30**
6	100	50	1	1HX0060	**6,82**

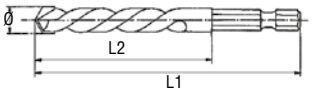
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
8	120	65	1	1HX0080	**7,82**
10	120	65	1	1HX0100	**11,15**
12	140	85	1	1HX0120	**14,97**

BROCA 3 PUNTAS PARA MADERA HSS-G

HSS-G 3 POINT WOOD DRIL BIT
FORET A BOIS 3 POINTES HSS-G



HSS-G



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3	61	34	1	120106003	**3,84**
4	75	50	1	120106004	**3,96**
5	86	60	1	120106005	**4,02**

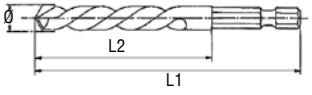
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6	93	68	1	120106006	**4,02**
8	115	90	1	120106008	**4,21**
10	132	107	1	120106010	**4,64**

BROCA 3 PUNTAS PARA MADERA HSS-G SERIE CORTA

HSS-G 3 POINT WOOD DRILL BIT SHORT SERIES
FORET A BOIS 3 POINTE HSS-G SERIE COURTE



HSS-G



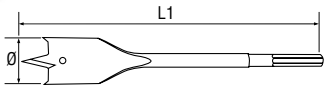
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3	39	22	1	3R67630	**6,44**
4	43	26	1	3R67640	**6,44**
5	48	31	1	3R67650	**6,44**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6	49	33	1	3R67660	**7,22**
8	50	37	1	3R67680	**8,09**
10	53	40	1	3R67698	**9,78**

BROCA PALA TIPO B *FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B*







Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
6,00	157	6,5	1	103006	**1,79**
8,00	157	6,5	1	103008	**1,79**
10,00	157	6,5	1	103010	**1,89**
12,00	157	6,5	1	103012	**2,28**
14,00	157	6,5	1	103014	**2,53**
15,00	157	6,5	1	103015	**2,53**
16,00	157	6,5	1	103016	**2,56**
17,00	157	6,5	1	103017	**2,68**
18,00	157	6,5	1	103018	**2,71**
19,00	157	6,5	1	103019	**2,79**
20,00	157	6,5	1	103020	**2,95**
22,00	157	6,5	1	103022	**3,45**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
24,00	157	6,5	1	103024	**3,78**
25,00	157	6,5	1	103025	**3,94**
26,00	157	6,5	1	103026	**4,18**
28,00	157	6,5	1	103028	**4,52**
30,00	157	6,5	1	103030	**4,71**
32,00	157	6,5	1	103032	**4,83**
33,00	157	6,5	1	103033	**5,25**
34,00	157	6,5	1	103034	**5,44**
35,00	157	6,5	1	103035	**6,15**
36,00	157	6,5	1	103036	**6,23**
38,00	157	6,5	1	103038	**6,56**
40,00	157	6,5	1	103040	**6,89**

ESTUCHE BROCAS PALA TIPO B
FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TIPE B

Ref.	Medidas / *Sizes*	Tipo / *Type*	€/Unid.
PB13	6-8-10-12-13-14-16-18-19-20-22-24-25	B	**34,70**



NEW

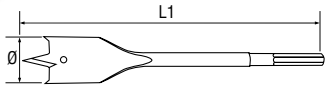
BROCA PALA TIPO C *FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C*











Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
6,00	152	6,5	1	103C06	**2,05**
8,00	152	6,5	1	103C08	**2,05**
9,00	152	6,5	1	103C09	**2,12**
10,00	152	6,5	1	103C10	**2,28**
11,00	152	6,5	1	103C11	**2,46**
12,00	152	6,5	1	103C12	**2,59**
13,00	152	6,5	1	103C13	**2,64**
14,00	152	6,5	1	103C14	**2,77**
15,00	152	6,5	1	103C15	**2,97**
16,00	152	6,5	1	103C16	**3,01**
18,00	152	6,5	1	103C18	**3,09**
19,00	152	6,5	1	103C19	**3,19**
20,00	152	6,5	1	103C20	**3,30**
22,00	152	6,5	1	103C22	**3,54**

Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
23,00	152	6,5	1	103C23	**3,82**
24,00	152	6,5	1	103C24	**3,98**
25,00	152	6,5	1	103C25	**4,39**
26,00	152	6,5	1	103C26	**4,54**
28,00	152	6,5	1	103C28	**5,02**
30,00	152	6,5	1	103C30	**5,31**
32,00	152	6,5	1	103C32	**5,54**
33,00	152	6,5	1	103C33	**5,76**
34,00	152	6,5	1	103C34	**5,97**
35,00	152	6,5	1	103C35	**6,26**
36,00	152	6,5	1	103C36	**6,61**
38,00	152	6,5	1	103C38	**6,96**
40,00	152	6,5	1	103C40	**7,23**

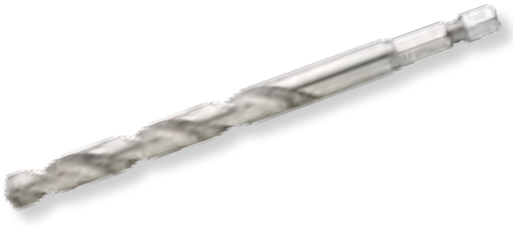
ESTUCHE BROCAS PALA TIPO C
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TIPE C

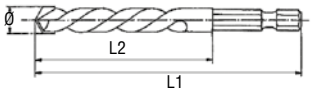
Ref.	Medidas / *Sizes*	Tipo / *Type*	€/Unid.
PC13	6-8-10-12-13-14-16-18-19-20-22-24-25	C	**38,89**



NEW

BROCA METAL HSS-G
HSS-G METAL DRILL BIT • FORETS METAL HSS-G



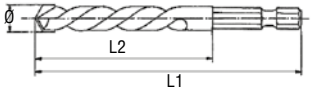


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3	62	35	1	130132003	**4,52**
4	75	50	1	130132004	**4,98**
5	85	60	1	130132005	**5,18**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6	94	68	1	130132006	**5,58**
8	117	90	1	130132008	**6,08**

BROCA METAL HSS-G SERIE CORTA
HSS-G METAL DRILL BIT SHORT SERIES
FORETS METAL HSS-G SÉRIE COURTE





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
1,0	32	7	1	3R67110	**6,80**
1,5	32	10	1	3R67115	**6,80**
2,0	34	12	1	3R67120	**6,80**
2,5	36	14	1	3R67125	**6,80**
3,0	38	16	1	3R67130	**6,80**
3,3	40	18	1	3R67133	**6,80**
3,5	40	18	1	3R67135	**6,80**
4,0	44	20	1	3R67140	**6,80**
4,2	45	20	1	3R67142	**6,80**
4,5	46	24	1	3R67145	**6,80**
5,0	50	26	1	3R67150	**6,80**
5,5	50	26	1	3R67155	**7,43**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,0	50	26	1	3R67160	**7,43**
6,5	50	30	1	3R67165	**7,43**
6,8	50	30	1	3R67168	**7,43**
7,0	50	30	1	3R67170	**7,43**
7,5	51	32	1	3R67175	**8,67**
8,0	51	32	1	3R67180	**8,67**
8,5	53	33	1	3R67185	**8,67**
9,0	53	33	1	3R67190	**10,41**
9,5	54	38	1	3R67195	**10,41**
10,0	54	38	1	3R67198	**10,41**
10,2	54	38	1	3R67199	**10,41**

ESTUCHE DE BROCAS
DRILL BITS SET
COFFRET FORETS



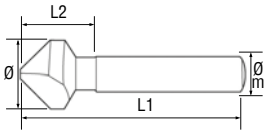
Medidas / *Sizes*
De 1,0 a 10,0 x 0,5 mm

Uds. / *Pcs.*	Cod.	€/Unid.
19	3R67100	**104,60**

AVELLANADORES 90º
COUNTERSINK HSS 90º • CHANFRENEUR HSS 90º



HSS-G | 1/4 | 90º



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,3	31	2,0 a 5,7	1	3R67306	**17,53**
8,3	31	2,5 a 7,6	1	3R67308	**17,53**
10,4	34	3,0 a 9,7	1	3R67310	**18,88**

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12,4	35	3,2 a 12,0	1	3R67312	**19,87**
16,5	40	3,6 a 16,0	1	3R67316	**22,30**
20,5	41	4,0 a 20,0	1	3R67320	**25,26**

CJTO. AVELLANANADORES C/ADAPTADOR Y MANGO
COUNTERSINK SET
COFFRET CHANFREINEURS



Medidas / *Sizes*		
6,3, 8,3, 10,4, 12,4, 16,5, 20,5 mm		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
8	3R67423	**82,58**

MACHO CON ANCLAJE DE 1/4”
1/4” SHANK TAPS
TARAUDS MÉCHE 1/4”



ACERO 400-800 N/mm² | HSS-G | DIN 13 | 1/4

Ø (mm)	L1	L2	Uds, / *Pcs,*	Cod,	€/Unid.
M 3,00 x 0,50	33,0	11	1	3R67026	**6,67**
M 3,50 x 0,60	33,5	10	1	3R67028	**10,20**
M 4,00 x 0,70	35,0	12	1	3R67030	**6,67**
M 4,50 x 0,75	35,0	12	1	3R67032	**10,20**
M 5,00 x 0,80	36,0	15	1	3R67034	**8,63**
M 5,50 x 0,90	35,0	15	1	3R67036	**11,48**
M 6,00 x 1,00	39,0	18	1	3R67038	**8,63**
M 7,00 x 1,00	37,5	16	1	3R67040	**11,48**
M 8,00 x 1,25	40,0	19	1	3R67042	**12,76**
M 9,00 x 1,25	40,5	18	1	3R67044	**19,14**
M 10,00 x 1,50	41,0	21	1	3R67046	**14,81**

ESTUCHE MACHOS MANGO HEXAGONAL HSS-G
HSS-G HEXAGON SHANK TAPS SET
COFFRET DE TARAUDS HEXAGONALES HSS-G



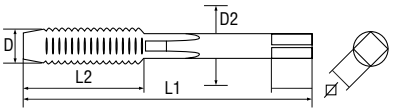
Medidas / *Sizes*		
M 3, 4, 5, 6, 8, 10 mm		
Uds. / *Pcs.*	**Cod.**	**€/Unid.**
7	3R67010	**59,52**

Métrica *Dimensions*	M 3	M 4	M 5	M 6	M 8	M 10
Ø Broca previa *Core hole dia*	2,5 mm	3,3 mm	4,2 mm	5,0 mm	6,8 mm	8,5 mm
N° de revoluciones *RPM*	Regulación más baja (0 – 450 revoluciones/min.) *Lowest setting (0 - 450 RPM)*					
Par de giro *Torque*	Regulación máxima *Maximum setting*					

MACHOS COMBINADOS HSS-G
HSS-G COMBINED TAPS
TARAUDS COMBINÉS HSS-G



HSS-G



Macho / *Tap* Ø (mm)	Broca / *Drill Bit* Ø (mm)	L1 (mm)	L2 (mm)	Uds, / *Pcs,*	Cod,	€/Unid.
M 3,00 x 0,50	2,5	36	18	1	3R67226	**16,50**
M 4,00 x 0,70	3,3	39	23	1	3R67230	**16,50**
M 5,00 x 0,80	4,2	41	25	1	3R67234	**16,50**
M 6,00 x 1,00	5,0	44	27	1	3R67238	**16,50**
M 8,00 x 1,25	6,8	50	35	1	3R67242	**23,59**
M 10,00 x 1,50	8,5	59	42	1	3R67246	**28,29**

ESTUCHE MACHOS COMBINADOS HSS-G
HSS-G COMBINED TAPS SET
COFFRET TARUADS COMBINÉS HSS-G



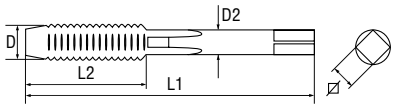
Medidas / *Sizes*
M 3, 4, 5, 6, 8, 10 (mm).

Uds. / *Pcs.*	Cod.	€/Unid.
7	3R67200	**122,74**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-800 N/mm² | HSS-G | TIN | TOL 6H | 1/4

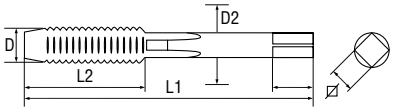


D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67210	**33,76**
M 4 x 0,70	3,3	39	3R67211	**33,76**
M 5 x 0,80	4,2	41	3R67212	**33,76**
M 6 x 1,00	5,0	44	3R67213	**33,76**
M 8 x 1,25	6,8	50	3R67214	**45,32**
M 10 x 1,50	8,5	59	3R67215	**62,51**

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



ACERO 400-800 N/mm² | HSS-G | 1/4



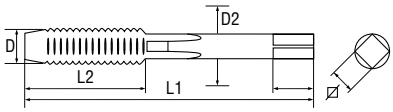
D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 40	2.30	36	3R67280	**23,44**
Nr. 5 x 40	2.60	36	3R67281	**23,44**
Nr. 6 x 32	2.85	39	3R67282	**23,44**
Nr. 8 x 32	3.50	39	3R67283	**23,44**
Nr. 10 x 24	3.90	41	3R67284	**23,44**
Nr. 12 x 24	4.50	41	3R67285	**23,44**
1/4 x 20	5.20	44	3R67286	**23,44**
5/16 x 18	6.60	50	3R67287	**32,81**
3/8 x 16	8.00	59	3R67288	**39,38**

UNF ROSCA FINA UNIFICADA ANSI B 1.1

UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1



HSS-G



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 48	2.4	36	3R67290	**23,44**
Nr. 5 x 44	2.7	36	3R67291	**23,44**
Nr. 6 x 40	3.0	39	3R67292	**23,44**
Nr. 8 x 36	3.5	39	3R67293	**23,44**
Nr. 10 x 32	4.1	41	3R67294	**23,44**
Nr. 12 x 28	4.7	41	3R67295	**23,44**
1/4 x 28	5.5	44	3R67296	**23,44**
5/16 x 24	6.9	50	3R67297	**32,81**
3/8 x 24	8.5	59	3R67298	**39,38**

M REPARADOR DE ROSCA CON ANCLAJE DE 1/4"

1/4" SHANK REPAIR KIT
KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4"



CLICK & DRILL

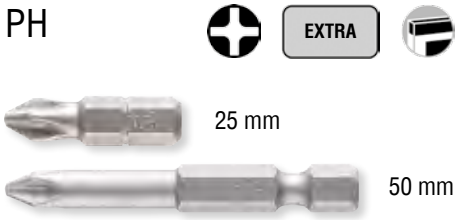
				x 1,5D	Uds. / *Pcs.*	Cod.	€/Unid.
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04307	**49,36**
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04309	**51,33**
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04310	**55,29**
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04312	**70,33**

Hasta fin de existencias / *Until end of stock / Jusqu´à épuisement des stocks*

PUNTAS DE ATORNILLAR 1/4"

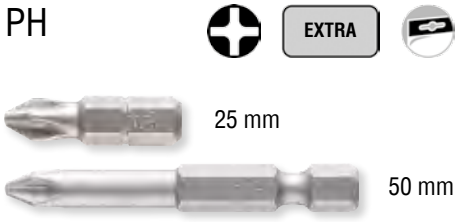
1/4" SCREWDRIVER BITS • ÉMBOUTS 1/4"

PH



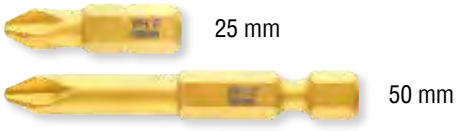
Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PH - 1 x 25	EXTRA	100	NM0PH1	83,90
PH - 2 x 25	EXTRA	100	NM0PH2	83,90
PH - 3 x 25	EXTRA	100	NM0PH3	83,90
PH - 4 x 32	EXTRA	50	NM0PH4	148,57
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PH - 1 x 50	EXTRA	50	NN0PH1	89,14
PH - 2 x 50	EXTRA	50	NN0PH2	89,14
PH - 3 x 50	EXTRA	50	NN0PH3	89,14

PH



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PH - 1 x 25	EXTRA	10	NMCPH1	10,56
PH - 2 x 25	EXTRA	10	NMCPH2	10,56
PH - 3 x 25	EXTRA	10	NMCPH3	10,56
PH - 4 x 32	EXTRA	10	NMCPH4	31,74
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PH - 1 x 50	EXTRA	5	NNCPH1	11,03
PH - 2 x 50	EXTRA	5	NNCPH2	11,03
PH - 3 x 50	EXTRA	5	NNCPH3	11,03

PH



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PH - 1 x 25	TIN - CVD	100	NM1PH1	260,42
PH - 2 x 25	TIN - CVD	100	NM1PH2	260,42
PH - 3 x 25	TIN - CVD	100	NM1PH3	260,42
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PH - 1 x 50	TIN - CVD	50	NN1PH1	213,24
PH - 2 x 50	TIN - CVD	50	NN1PH2	213,24
PH - 3 x 50	TIN - CVD	50	NN1PH3	213,24

PH



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PH - 1 x 25	TIN - CVD	10	NMTPH1	28,21
PH - 2 x 25	TIN - CVD	10	NMTPH2	28,21
PH - 3 x 25	TIN - CVD	10	NMTPH3	28,21
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PH - 1 x 50	TIN - CVD	5	NNTPH1	23,02
PH - 2 x 50	TIN - CVD	5	NNTPH2	23,02
PH - 3 x 50	TIN - CVD	5	NNTPH3	23,02

HEX



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
HEX 2,0 x 25	EXTRA	50	NS0H20	63,53
HEX 2,5 x 25	EXTRA	50	NS0H25	63,53
HEX 3,0 x 25	EXTRA	100	NS0H30	127,05
HEX 4,0 x 25	EXTRA	100	NS0H40	127,05
HEX 5,0 x 25	EXTRA	100	NS0H50	127,05
HEX 6,0 x 25	EXTRA	100	NS0H60	127,05
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
HEX 2,0 x 50	EXTRA	25	NT0H20	65,34
HEX 2,5 x 50	EXTRA	25	NT0H25	65,34
HEX 3,0 x 50	EXTRA	50	NT0H30	130,68
HEX 4,0 x 50	EXTRA	50	NT0H40	130,68
HEX 5,0 x 50	EXTRA	50	NT0H50	130,68
HEX 6,0 x 50	EXTRA	50	NT0H60	130,68

HEX



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
HEX 2,0 x 25	EXTRA	10	NSCH20	14,90
HEX 2,5 x 25	EXTRA	10	NSCH25	14,90
HEX 3,0 x 25	EXTRA	10	NSCH30	14,90
HEX 4,0 x 25	EXTRA	10	NSCH40	14,90
HEX 5,0 x 25	EXTRA	10	NSCH50	14,90
HEX 6,0 x 25	EXTRA	10	NSCH60	14,90
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
HEX 2,0 x 50	EXTRA	5	NTCH20	15,24
HEX 2,5 x 50	EXTRA	5	NTCH25	15,24
HEX 3,0 x 50	EXTRA	5	NTCH30	15,24
HEX 4,0 x 50	EXTRA	5	NTCH40	15,24
HEX 5,0 x 50	EXTRA	5	NTCH50	15,24
HEX 6,0 x 50	EXTRA	5	NTCH60	15,24

PUNTAS DE ATORNILLAR 1/4”
1/4” SCREWDRIVER BITS • ÉMBOUTS 1/4”

PZ

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PZ - 1 x 25	EXTRA	100	NP0PZ1	83,90
PZ - 2 x 25	EXTRA	100	NP0PZ2	83,90
PZ - 3 x 25	EXTRA	100	NP0PZ3	83,90
PZ - 4 x 32	EXTRA	50	NP0PZ4	145,19
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PZ - 1 x 50	EXTRA	50	NQ0PZ1	89,14
PZ - 2 x 50	EXTRA	50	NQ0PZ2	89,14
PZ - 3 x 50	EXTRA	50	NQ0PZ3	89,14

PZ

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PZ - 1 x 25	EXTRA	10	NPCPZ1	10,56
PZ - 2 x 25	EXTRA	10	NPCPZ2	10,56
PZ - 3 x 25	EXTRA	10	NPCPZ3	10,56
PZ - 4 x 32	EXTRA	10	NPCPZ4	32,23
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PZ - 1 x 50	EXTRA	5	NQCPZ1	11,03
PZ - 2 x 50	EXTRA	5	NQCPZ2	11,03
PZ - 3 x 50	EXTRA	5	NQCPZ3	11,03

PZ

TIN



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PZ - 1 x 25	TIN - CVD	100	NP1PZ1	260,42
PZ - 2 x 25	TIN - CVD	100	NP1PZ2	260,42
PZ - 3 x 25	TIN - CVD	100	NP1PZ3	260,42
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PZ - 1 x 50	TIN - CVD	50	NQT1Z1	213,24
PZ - 2 x 50	TIN - CVD	50	NQT1Z2	213,24
PZ - 3 x 50	TIN - CVD	50	NQT1Z3	213,24

PZ

TIN



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PZ - 1 x 25	TIN - CVD	10	NPTPZ1	28,21
PZ - 2 x 25	TIN - CVD	10	NPTPZ2	28,21
PZ - 3 x 25	TIN - CVD	10	NPTPZ3	28,21
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PZ - 1 x 50	TIN - CVD	5	NQTPZ1	23,46
PZ - 2 x 50	TIN - CVD	5	NQTPZ2	23,46
PZ - 3 x 50	TIN - CVD	5	NQTPZ3	23,46

R-CUADRADA
R-SQUARE
R-CARRÉ

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
R - 1 x 25	EXTRA	50	NU00R1	69,89
R - 2 x 25	EXTRA	50	NU00R2	69,89
R - 3 x 25	EXTRA	50	NU00R3	69,89
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
R - 1 x 50	EXTRA	25	NV00R1	92,11
R - 2 x 50	EXTRA	25	NV00R2	92,11
R - 3 x 50	EXTRA	25	NV00R3	92,11

R-CUADRADA
R-SQUARE
R-CARRÉ

EXTRA



Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
R - 1 x 25	EXTRA	10	NU0CR1	9,06
R - 2 x 25	EXTRA	10	NU0CR2	9,06
R - 3 x 25	EXTRA	10	NU0CR3	9,06
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
R - 1 x 50	EXTRA	5	NV0CR1	20,58
R - 2 x 50	EXTRA	5	NV0CR2	20,58
R - 3 x 50	EXTRA	5	NV0CR3	20,58

PUNTAS DE ATORNILLAR 1/4”
1/4” SCREWDRIVER BITS • ÉMBOUTS 1/4”

TORX

EXTRA



25 mm



50 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
T - 6 x 25	EXTRA	50	NJ0T06	103,12
T - 7 x 25	EXTRA	50	NJ0T07	103,12
T - 8 x 25	EXTRA	50	NJ0T08	103,12
T - 9 x 25	EXTRA	50	NJ0T09	103,12
T - 10 x 25	EXTRA	100	NJ0T10	173,04
T - 15 x 25	EXTRA	100	NJ0T15	173,04
T - 20 x 25	EXTRA	100	NJ0T20	173,04
T - 25 x 25	EXTRA	100	NJ0T25	173,04
T - 27 x 25	EXTRA	100	NJ0T27	173,04
T - 30 x 25	EXTRA	100	NJ0T30	173,04
T - 40 x 25	EXTRA	100	NJ0T40	173,04
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
T - 10 x 50	EXTRA	50	NK0T10	243,22
T - 15 x 50	EXTRA	50	NK0T15	243,22
T - 20 x 50	EXTRA	50	NK0T20	243,22
T - 25 x 50	EXTRA	50	NK0T25	243,22
T - 27 x 50	EXTRA	50	NK0T27	243,22
T - 30 x 50	EXTRA	50	NK0T30	243,22
T - 40 x 50	EXTRA	50	NK0T40	243,22

TORX

EXTRA



25 mm



50 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
T - 6 x 25	EXTRA	10	NJCT06	23,19
T - 7 x 25	EXTRA	10	NJCT07	23,19
T - 8 x 25	EXTRA	10	NJCT08	23,19
T - 9 x 25	EXTRA	10	NJCT09	23,19
T - 10 x 25	EXTRA	10	NJCT10	19,33
T - 15 x 25	EXTRA	10	NJCT15	19,33
T - 20 x 25	EXTRA	10	NJCT20	19,33
T - 25 x 25	EXTRA	10	NJCT25	19,33
T - 27 x 25	EXTRA	10	NJCT27	19,33
T - 30 x 25	EXTRA	10	NJCT30	19,33
T - 40 x 25	EXTRA	10	NJCT40	19,33
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
T - 10 x 50	EXTRA	5	NKCT10	26,51
T - 15 x 50	EXTRA	5	NKCT15	26,51
T - 20 x 50	EXTRA	5	NKCT20	26,51
T - 25 x 50	EXTRA	5	NKCT25	26,51
T - 27 x 50	EXTRA	5	NKCT27	26,51
T - 30 x 50	EXTRA	5	NKCT30	26,51
T - 40 x 50	EXTRA	5	NKCT40	26,51

TORX

TIN



25 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
T - 10 x 25	TIN - CVD	100	NJ1T10	325,09
T - 15 x 25	TIN - CVD	100	NJ1T15	325,09
T - 20 x 25	TIN - CVD	100	NJ1T20	325,09
T - 25 x 25	TIN - CVD	100	NJ1T25	325,09
T - 27 x 25	TIN - CVD	100	NJ1T27	325,09
T - 30 x 25	TIN - CVD	100	NJ1T30	325,09
T - 40 x 25	TIN - CVD	100	NJ1T40	325,09

TORX

TIN



25 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
T - 10 x 25	TIN - CVD	10	NJTT10	34,57
T - 15 x 25	TIN - CVD	10	NJTT15	34,57
T - 20 x 25	TIN - CVD	10	NJTT20	34,57
T - 25 x 25	TIN - CVD	10	NJTT25	34,57
T - 27 x 25	TIN - CVD	10	NJTT27	34,57
T - 30 x 25	TIN - CVD	10	NJTT30	34,57
T - 40 x 25	TIN - CVD	10	NJTT40	34,57

PUNTAS DE ATORNILLAR 1/4”
1/4” SCREWDRIVER BITS • ÉMBOUTS 1/4”

TORX INVIOLABLE
TORX TAMPER
TORX PERCÉ BAGUÉ

EXTRA



25 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
T x - 10 x 25	EXTRA	50	NL0T10	162,54
T x - 15 x 25	EXTRA	50	NL0T15	162,54
T x - 20 x 25	EXTRA	50	NL0T20	162,54
T x - 25 x 25	EXTRA	50	NL0T25	162,54
T x - 27 x 25	EXTRA	50	NL0T27	162,54
T x - 30 x 25	EXTRA	50	NL0T30	162,54
T x - 40 x 25	EXTRA	50	NL0T40	162,54

TORX INVIOLABLE
TORX TAMPER
TORX PERCÉ BAGUÉ

EXTRA



25 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
T x - 10 x 25	EXTRA	10	NLCT10	34,64
T x - 15 x 25	EXTRA	10	NLCT15	34,64
T x - 20 x 25	EXTRA	10	NLCT20	34,64
T x - 25 x 25	EXTRA	10	NLCT25	34,64
T x - 27 x 25	EXTRA	10	NLCT27	34,64
T x - 30 x 25	EXTRA	10	NLCT30	34,64
T x - 40 x 25	EXTRA	10	NLCT40	34,64

PLANA
SLOTTED
PLAT

EXTRA



25 mm



50 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PLANA 3,0 x 0,5 x 25	EXTRA	50	NH3005	63,53
PLANA 4,0 x 0,5 x 25	EXTRA	100	NH4005	127,05
PLANA 4,5 x 0,6 x 25	EXTRA	100	NH4506	127,05
PLANA 5,5 x 0,8 x 25	EXTRA	100	NH5508	127,05
PLANA 5,5 x 1,0 x 25	EXTRA	100	NH5510	127,05
PLANA 6,5 x 1,2 x 25	EXTRA	100	NH6512	127,05
PLANA 8,0 x 1,2 x 25	EXTRA	50	NH8012	247,76
PLANA 8,0 x 1,6 x 25	EXTRA	50	NH8016	247,76
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PLANA 3,0 x 0,5 x 50	EXTRA	25	NI3005	74,41
PLANA 4,0 x 0,5 x 50	EXTRA	50	NI4005	148,84
PLANA 4,5 x 0,6 x 50	EXTRA	50	NI4506	148,84
PLANA 5,5 x 0,8 x 50	EXTRA	50	NI5508	148,84
PLANA 5,5 x 1,0 x 50	EXTRA	50	NI5510	148,84
PLANA 6,5 x 1,2 x 50	EXTRA	50	NI6512	148,84
PLANA 8,0 x 1,2 x 50	EXTRA	25	NI8012	128,87
PLANA 8,0 x 1,6 x 50	EXTRA	25	NI8016	128,87

PLANA
SLOTTED
PLAT

EXTRA



25 mm



50 mm

Forma / *Form*	Calidad / *Quality*	Uds. / *Pcs.*	Cod.	€/Envase
PLANA 3,0 x 0,5 x 25	EXTRA	10	NHC3005	14,90
PLANA 4,0 x 0,5 x 25	EXTRA	10	NHC4005	14,90
PLANA 4,5 x 0,6 x 25	EXTRA	10	NHC4506	14,92
PLANA 5,5 x 0,8 x 25	EXTRA	10	NHC5508	14,94
PLANA 5,5 x 1,0 x 25	EXTRA	10	NHC5510	14,96
PLANA 6,5 x 1,2 x 25	EXTRA	10	NHC6512	14,97
PLANA 8,0 x 1,2 x 25	EXTRA	10	NHC8012	51,78
PLANA 8,0 x 1,6 x 25	EXTRA	10	NHC8016	51,78
Forma / *Form*	**Calidad / *Quality***	**Uds. / *Pcs.***	**Cod.**	**€/Envase**
PLANA 3,0 x 0,5 x 50	EXTRA	5	NIC3005	17,07
PLANA 4,0 x 0,5 x 50	EXTRA	5	NIC4005	17,07
PLANA 4,5 x 0,6 x 50	EXTRA	5	NIC4506	17,07
PLANA 5,5 x 0,8 x 50	EXTRA	5	NIC5508	17,07
PLANA 5,5 x 1,0 x 50	EXTRA	5	NIC5510	17,07
PLANA 6,5 x 1,2 x 50	EXTRA	5	NIC6512	17,07
PLANA 8,0 x 1,2 x 50	EXTRA	5	NIC8012	27,99
PLANA 8,0 x 1,6 x 50	EXTRA	5	NIC8016	27,99

Otras puntas, CONSULTAR. / *For measurements not listed, request.* / *Pour des mesures non cotées consulter.*

EXPENDEDOR DE PUNTAS
SCREWDRIVER BITS BOX • CAISSE ÉMBOUTS

ADVANCE MAXIMO RENDIMIENTO

EXTRA

CLICK & DRILL



Descripción / *Description*	Uds. / *Pcs.*	Cod.	€/Unid.
Composición Puntas 25 mm / *Bits 25 mm* / *Embouts 25 mm*	325	NX0017	**390,66**
Composición Puntas 50 mm / *Bits 50 mm* / *Embouts 50 mm*	150	NX0018	**412,08**

Contenido / *Contains* / *Contenu*

EXPENDEDOR DE PUNTAS 25 mm / *SCREWDRIVER BITS BOX 25 mm* / *CAISSE ÉMBOUTS 25 mm*

Puntas / *Bits*	Uds. / *Pcs.*
PLANA / *SLOTTED* / *PLAT* 4,5 x 0,6 x 25	20
PLANA / *SLOTTED* / *PLAT* 5,5 x 0,8 x 25	50
PLANA / *SLOTTED* / *PLAT* 6,5 x 1,2 x 25	20
TORX-10 x 25	10
TORX-15 x 25	10
TORX-20 x 25	10
TORX-25 x 25	10
PH-1 x 25	20
PH-2 x 25	50
PH-3 x 25	10

Puntas / *Bits*	Uds. / *Pcs.*
HEX 3,0 x 25	10
HEX 4,0 x 25	10
HEX 5,0 x 25	10
PZ-1 x 25	20
PZ-2 x 25	50
PZ-3 x 25	10
ADAPTADOR MAGNETICO / *MAGNETIC HOLDER* *ADAPTATEUR MAGNETIQUE* 10 x 60	5

EXPENDEDOR DE PUNTAS 50 mm / *SCREWDRIVER BITS BOX 50 mm* / *CAISSE ÉMBOUTS 50 mm*

Puntas / *Bits*	Uds. / *Pcs.*
PLANA / *SLOTTED* / *PLAT* 4,5 x 0,6 x 50	10
PLANA / *SLOTTED* / *PLAT* 5,5 x 0,8 x 50	20
PLANA / *SLOTTED* / *PLAT* 6,5 x 1,2 x 50	10
TORX-10 x 50	5
TORX-15 x 50	5
TORX-20 x 50	5
TORX-25 x 50	5
PH-1 x 50	5
PH-2 x 50	20
PH-3 x 50	5

Puntas / *Bits*	Uds. / *Pcs.*
HEX 3,0 x 50	5
HEX 4,0 x 50	5
HEX 5,0 x 50	5
PZ-1 x 50	10
PZ-2 x 50	20
PZ-3 x 50	10
ADAPTADOR MAGNETICO / *MAGNETIC HOLDER* *ADAPTATEUR MAGNETIQUE* 10 x 60	5

PUNTAS DE ATORNILLAR 1/4”
1/4” SCREWDRIVER BITS • ÉMBOUTS 1/4”

JUEGOS DE PUNTAS
SCREWDRIVER BIT SETS • COFFRET ÉMBOUT

Basic



Descripción / *Description*	Uds. / *Pcs.*	Cod.	€/Unid.
Juego Puntas y Adaptador EXTRA ***Screwdriver Bit Sets & Adapter EXTRA*** / *Coffret Émbout et Adaptateur EXTRA*	32	NX0019	**28,93**

Contenido / *Contains* / *Contenu*

Puntas / *Bits*
PH-1, PH-2, PH-2, PH-3
PZ-1, PZ-2, PZ-2, PZ-3
PLANA / *SLOTTED* / *PLAT* 3-4-5-6
HEX-3, HEX-4, HEX-5, HEX-6

Puntas / *Bits*
TORX-10, TORX-15, TORX-20, TORX-25, TORX-27, TORX-30, TORX-40
TX.INV.-10, TX.INV.-15, TX.INV.-20, TX.INV.-25, TX.INV.-27, TX.INV.-30, TX.INV.-40
ADAPTADOR MAGNETICO *MAGNETIC HOLDER* / *ADAPTATEUR MAGNETIQUE*
ADAPTADOR PORTA VASOS *NUT DRIVER SOCKETS* / *ADAPTATEUR Á BILLE*

JUEGOS DE PUNTAS
SCREWDRIVER BIT SETS • COFFRET ÉMBOUT

ADVANCE MAXIMO RENDIMIENTO

EXTRA



Descripción / *Description*	Uds. / *Pcs.*	Cod.	€/Unid.
Juego Puntas y Adaptador EXTRA ***Screwdriver Bit Sets & Adapter EXTRA*** / *Coffret Émbout et Adaptateur EXTRA*	32	NX0020	**56,58**

Contenido / *Contains* / *Contenu*

Puntas / *Bits*
PH-1, PH-2, PH-3 x 2
PZ-1, PZ-2, PZ-3 x 2
HEX-2, HEX-2,5, HEX-3, HEX-4, HEX-5, HEX-6

Puntas / *Bits*
PLANA[0] / *SLOTTED* / *PLAT* 3 - 4 - 4,5 - 5,5 - 6,5 - 8
TORX-10, TORX-15, TORX-20, TORX-25, TORX-27, TORX-30
ADAPTADOR MAGNETICO 10x60 *MAGNETIC HOLDER 10x60* / *ADAPTATEUR MAGNETIQUE 10x60*

ESTUCHES PUNTAS CON MANGO SILICONA
BITS SET WITH HANDLE • COFFRET ÉMBOUTS AVEC MANCHE



Descripción / *Description*	Uds. / *Pcs.*	Cod.	€/Unid.
Juego de Puntas PH - 1 x 25, Mango 1/4", Adaptador Rápido 1/4" *PH - 1 x 25 Scerwdriver Set with Quick Holder* *Coffret Émbouts PH - 1 x 25 Avec Adaptateur Rapide*	52	NPH150	**89,39**
Juego de Puntas PH - 2 x 25, Mango 1/4", Adaptador Rápido 1/4" *PH - 2 x 25 Scerwdriver Set with Quick Holder* *Coffret Émbouts Ph - 2 x 25 Avec Adaptateur Rapide*	52	NPH250	**89,39**
Juego de Puntas PZ - 1 x 5, Mango 1/4", Adaptador Rápido 1/4" *PZ - 1 x 5 Scerwdriver Set with Quick Holder* *Coffret Émbouts PZ - 1 x 5 Avec Adaptateur Rapide*	52	NPZ150	**89,39**
Juego de Puntas PZ - 2 x 25, Mango 1/4", Adaptador Rápido 1/4" *PZ - 2 x 25 Scerwdriver Set with Quick Holder* *Coffret Émbouts PZ - 2 x 25 Avec Adaptateur Rapide*	52	NPZ250	**89,39**

JUEGOS DE BROCAS 1/4"
1/4" DRILL BIT SET • COFFRET FORET 1/4"



Descripción / *Description*	Uds. / *Pcs.*	Cod.	€/Unid.
Construcción + Madera Extracorta + Adaptador Magnético *Masonry + Wood Extrashort + Magnetic Holder* *Béton + Bois Extracourte + Adpatateur Magnétique*	12	6JG001	**83,03**
Construcción + Metal Extracorta + Adaptador Magnético *Masonry + Metal Extrashort + Magnetic Holder* *Béton + Metal Extracourte + Adpatateur Magnétique*	12	6JG002	**83,03**
Madera + Madera Extracorta + Adaptador Magnético *Wood + Wood Extrashort + Magnetic Holder* *Bois + Bois Extracourte + Adpatateur Magnétique*	12	6JG003	**83,03**
Madera + Metal Extracorta + Adaptador Magnético *Wood + Metal Extrashort + Magnetic Holder* *Bois + Metal Extracourte + Adpatateur Magnétique*	12	6JG004	**83,03**
Metal + Metal Extracorta + Adaptador Magnético *Metal + Metal Extrashort + Magnetic Holder* *Metal + Metal Extracourte + Adpatateur Magnétique*	12	6JG005	**83,03**
Metal + Madera Extracorta + Adaptador Magnético *Metal + Wood Extra Short + Magnetic Holder* *Metal + Bois Extracourte + Adpatateur Magnétique*	12	6JG006	**83,03**

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

Diámetros / *Diameters* / *Diametres*	
SERIE NORMAL / *NORMAL SERIES* / *SÉRIE NORMALE*	4, 5, 6, 8, 10 mm
SERIE EXTRACORTA / *EXTRASHORT SERIES* / *SÉRIE EXTRACOURTE*	3, 4, 5, 6, 8, 10 mm

ADAPTADOR
ADAPTER • ADAPTATEUR



ADAPTADOR MAGNETICO 1/4'' DE 10 x 60 mm
MAGNETIC HOLDER 10 x 60 mm
ADAPTATEUR MAGNETIQUE 10 x 60 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	NZAD10	**5,54**



ADAPTADOR MAGNETICO 1/4'' DE 10 x 100 mm
MAGNETIC HOLDER 10 x 100 mm
ADAPTATEUR MAGNETIQUE 10 x 100 mm

Uds. / *Pcs.*	Cod.	€/Unid.
1	NZAD100	**12,68**



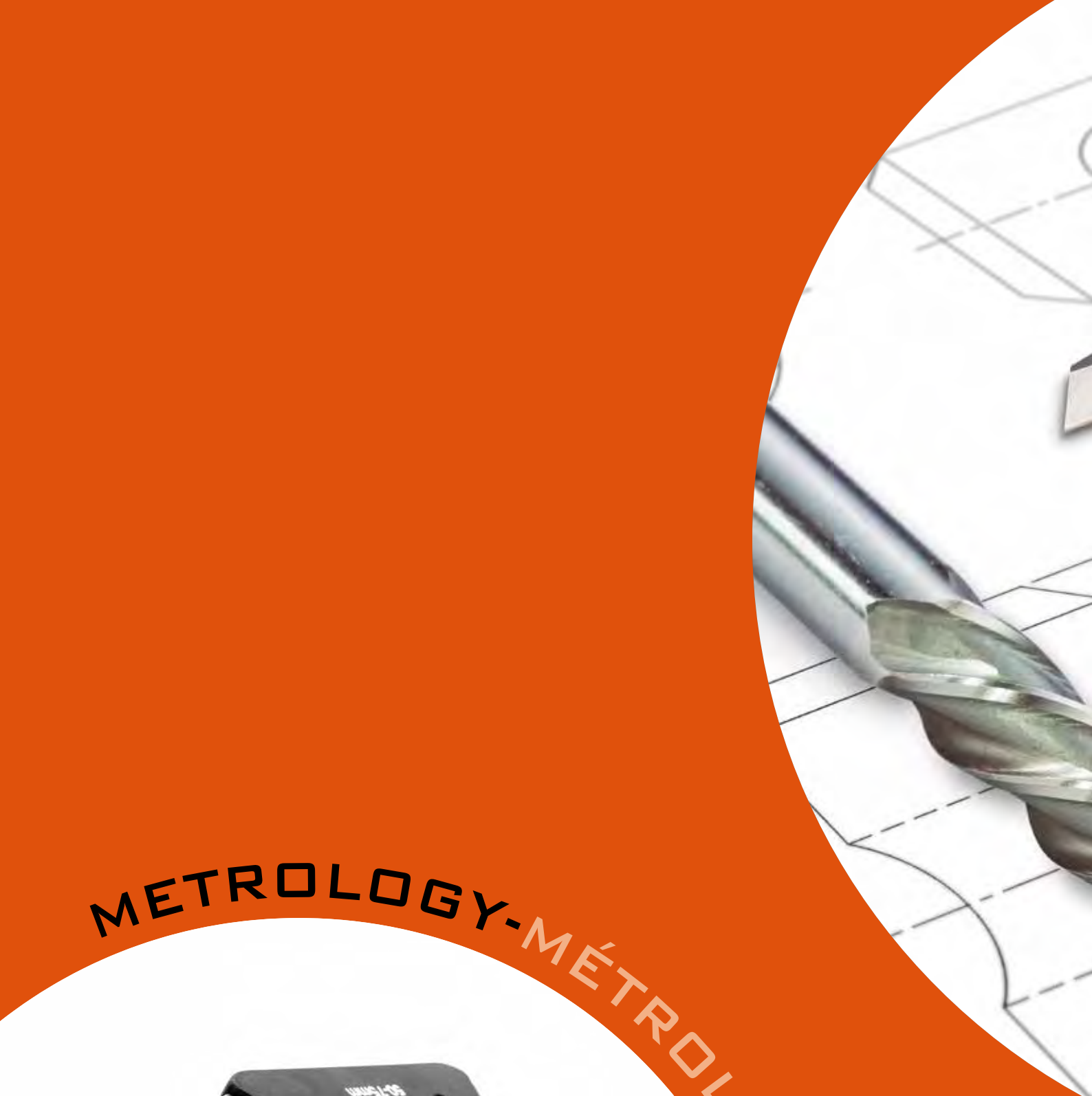
ADAPTADOR 1/4'' CAMBIO RÁPIDO
QUICK GRIP HOLDER
ADAPTATEUR RAPIDE

Uds. / *Pcs.*	Cod.	€/Unid.
1	NZAD14	**17,53**



MANGO SILICONA GRIP HEXAGONAL 1/4''
SILICONE SHANK HOLDER
MANCHE DE SILICONE

Uds. / *Pcs.*	Cod.	€/Unid.
1	NZBD14	**19,23**



METROLOGY-MÉTROLOGIE





METROLOGÍA

SESA TOOLS®



RELOJ COMPARADOR ANALÓGICO
DIAL INDICATOR • COMPARATEUR



Ref.	Modelo / *Model*	Esfera / *Oval* (Ø mm)	MEDICIÓN / *MEASUREMENT* Capacidad / *Range*	Resolución *Resolution* (mm)	Uds. *Pcs.*	Cod.	€/Unid.
851	ANALÓGICO	55	0 - 10 mm / 0 - 0,5"	0,01	1	XD0511	**48,36**

RELOJ COMPARADOR DIGITAL
ELECTRONIC DIAL INDICATOR
COMPARATEUR AFFICHAGE DIGITAL



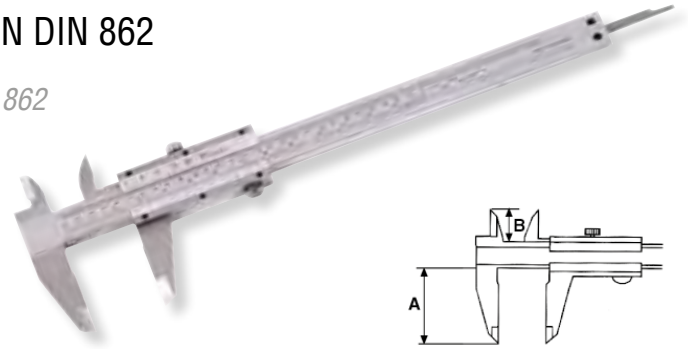
Ref.	Modelo / *Model*	Esfera / *Oval* (Ø mm)	MEDICIÓN / *MEASUREMENT* Capacidad / *Range*	Resolución *Resolution* (mm)	Uds. *Pcs.*	Cod.	€/Unid.
852	DIGITAL	55	0 - 10 mm / 0 - 0,5"	0,01	1	XD0512	**101,40**

BASE MAGNÉTICA
MAGNETIC BASE • SUPPORT MAGNETIQUE



Ref.	Soporte / *Base* (mm)	Torreta Vertical *Height of Column* (mm)	Torreta Articulada *Articulated Arm* (mm)	Cod.	€/Unid.
801	50 x 55 x 66	180 x 12	150 x 10	XD0510	**53,66**

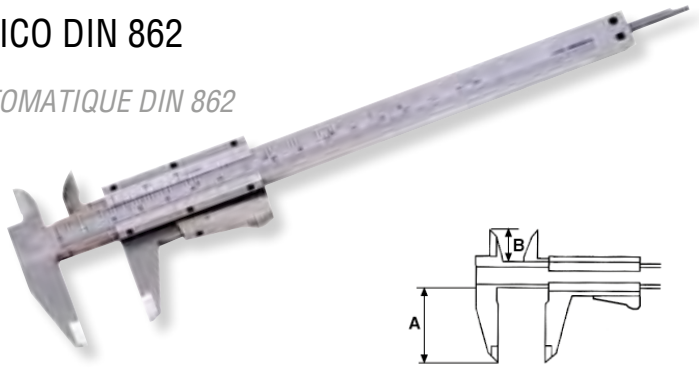
CALIBRE INOX CON TORNILLO DE FIJACIÓN DIN 862
INOX CALIPER WITH LOCKING SCREW DIN 862
PIED À COULISSE INOX AVEC VIS DE BLOCKAGE DIN 862



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
103	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X10150	**29,70**
103-L	46 - 23	0 - 200	0,05	MATE	ABS-PLASTIC	X10150L	**42,52**
104	40 - 20	0 - 150	0,05	MATE	CUERO	X10415	**33,38**

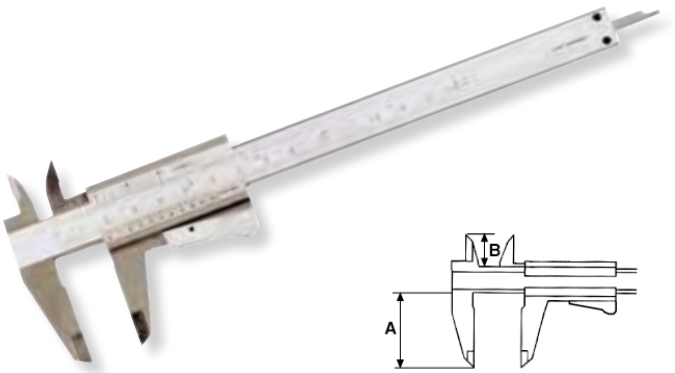
CALIBRE INOX CON PULSADOR AUTOMÁTICO DIN 862
INOX CALIPER WITH LOCKING DEVICE DIN 862
PIED Á COULISSE INOX AVEC VIS DE BLOCKAGE AUTOMATIQUE DIN 862



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
105	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X20515	**32,26**
106	40 - 20	0 - 150	0,05	MATE	CUERO	X20150	**32,26**

CALIBRE INOX MONOBLOCK DIN 862
INOX MONOBLOCK CALIPER DIN 862
PIED Á COULISSE INOX MONOBLOCK DIN 862



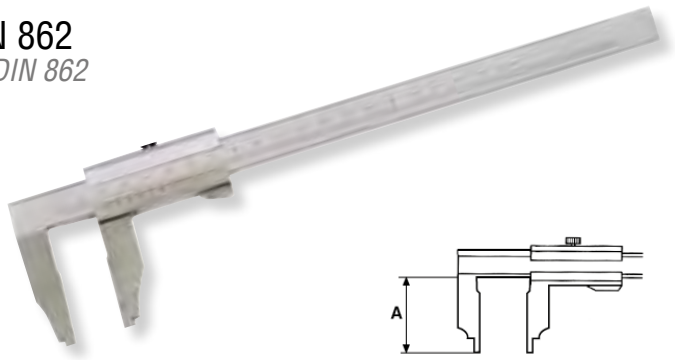
DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
107	40 - 20	0 - 150	0,05	MATE	CUERO	X30715	**50,42**
107-B	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X3071B	**50,42**



CALIBRE TORNERO INOX MONOBLOCK DIN 862

INOX MONOBLOCK CALIPER WITH LOCKING SCREW DIN 862
PIED Á COULISSE DE TOURNEUR INOX DIN 862

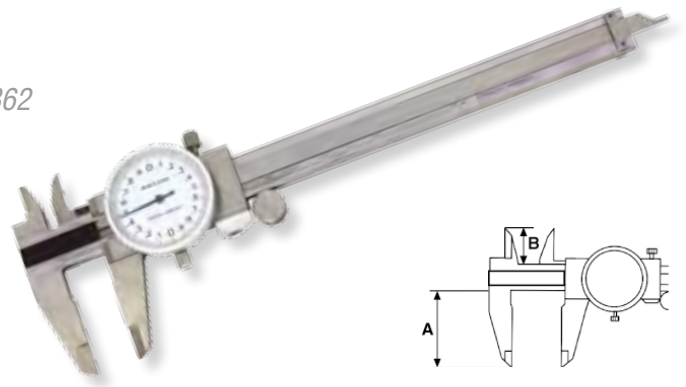


DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
110-B	59	0 - 200	0,02	MATE	ABS-PLASTIC	X5102B	**105,57**

CALIBRE INOX CON RELOJ DIN 862

DIAL INOX CALIPER DIN 862
PIED Á COULISSE INOX AVEC COMPARATEUR DIN 862

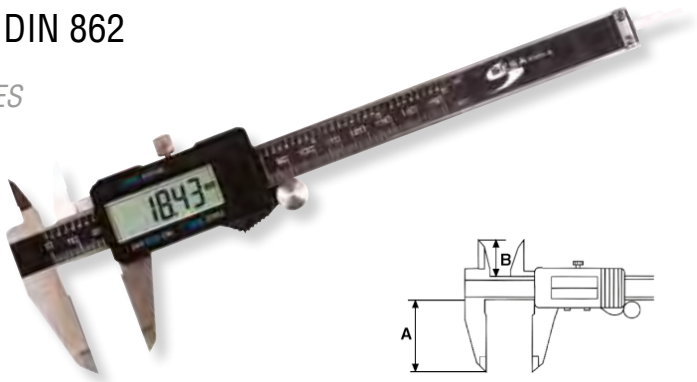


DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
111	40 - 20	0 - 150	0,02	MATE	ABS-PLASTIC	X61115	**60,81**
111-X	58 - 20	0 - 300	0,02	MATE	ABS-PLASTIC	X61115X	**161,03**

CALIBRE DIGITAL INOX - MM / PULGADAS DIN 862

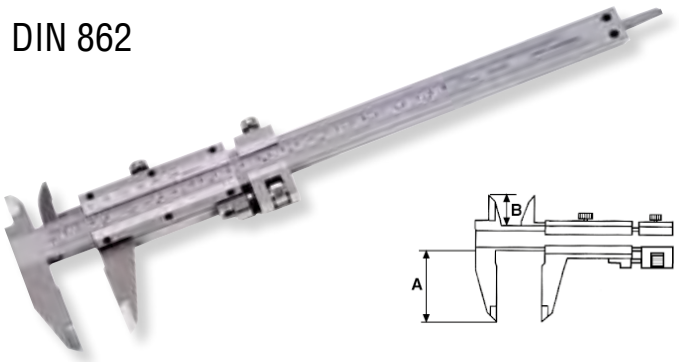
DIGITAL INOX CALIPER DIN 862 MM / INCHES
PIED Á COULISSE INOX DIGITAL DIN 862 MM / POUCES



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
112-G	40 - 20	0 - 150	0,01	MATE	ABS-PLASTIC	X71215G	**82,19**
112-L	46 - 23	0 - 200	0,01	MATE	ABS-PLASTIC	X71215L	**86,48**
112-X	46 - 23	0 - 300	0,01	MATE	ABS-PLASTIC	X71215X	**160,26**

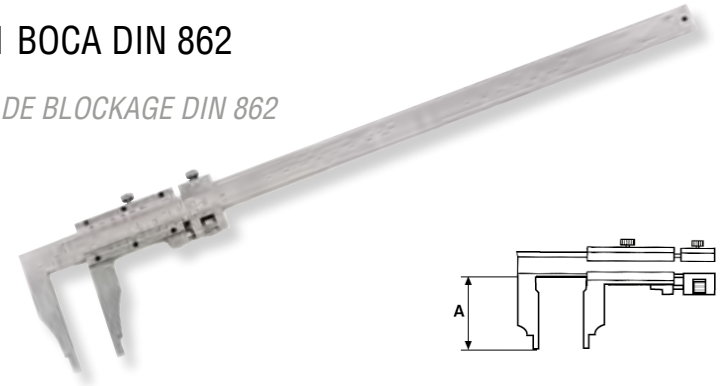
CALIBRE INOX CON TORNILLO DE APROX. DIN 862
INOX CALIPER WITH FINE ADJUSTMENT DIN 862
PIED Á COULISSE INOX AVEC VIS DE BLOCKAGE



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
109-C	40 - 20	0 - 150	0,02	MATE	ABS-PLASTIC	X40920C	**38,54**
109	46 - 26	0 - 200	0,02	MATE	ABS-PLASTIC	X40920	**48,34**
116	55 - 26,5	0 - 300	0,02	MATE	ABS-PLASTIC	X10300	**87,84**
116-A	130 - 45	0 - 1.000	0,02	MATE	MADERA	X01000A	**724,03**

CALIBRE CON TORNILLO DE APROX. - 1 BOCA DIN 862
INOX CALIPER WITH LOCKING SCREW DIN 862
PIED Á COULISSE DE TOURNEUR INOX AVEC VIS DE BLOCKAGE DIN 862



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	**A - B (mm)**	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
116-T	62	0 - 300	0,02	MATE	MADERA	X10300T	**96,03**
117	85	0 - 500	0,02	MATE	MADERA	X00500	**242,01**
117-N	126	0 - 800	0,02	MATE	MADERA	X00800	**522,88**
118	150	0 - 1.000	0,02	MATE	MADERA	X01000	**892,73**

CALIBRE CALIBRE INOX PROFUNDIDAD DIN 862
INOX DEPTH GAUGE DIN 862
JAUGES DE PROFONDEUR INOX DIN 862



DIN 862

	MEDICIÓN / *MEASUREMENT*					
Ref.	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
113	0 - 200	0,02	MATE	MADERA	X81320	**46,08**

MICRÓMETRO INOX PARA EXTERIORES DIN 863

INOX OUTSIDE MICROMETERS
MICROMÈTRES POUR EXTERIEURES



DIN 863

			MEDICIÓN / *MEASUREMENT*					
Ref.	**Anillo / *Ring* (mm)**	**Contacto *Contact***	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
201	6,5	WIDIA	0 - 25	0,01	MATE	ABS-PLASTIC	X91025	**42,02**
202	6,5	WIDIA	25 - 50	0,01	MATE	ABS-PLASTIC	X92050	**47,29**
203	6,5	WIDIA	50 - 75	0,01	MATE	ABS-PLASTIC	X93075	**58,07**
204	6,5	WIDIA	75 - 100	0,01	MATE	ABS-PLASTIC	X94100	**67,19**
205	6,5	WIDIA	100 - 125	0,01	MATE	ABS-PLASTIC	X94125	**111,00**
206	6,5	WIDIA	125 - 150	0,01	MATE	ABS-PLASTIC	X94150	**167,66**

MICRÓMETRO INOX DIGITAL PARA EXTERIORES DIN 863

ELECTRONIC OUTSIDE MICROMETERS
MICROMÉTRES EXTERIEURES DIGITALES



DIN 863

			MEDICIÓN / *MEASUREMENT*					
Ref.	**Anillo / *Ring* (mm)**	**Contacto *Contact***	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
301	6,5	WIDIA	0 - 25	0,001	MATE	ABS-PLASTIC	XA1025	**219,88**

MICRÓMETRO INOX PARA INTERIORES
INTERNAL INOX MICROMETERS
ALÉSOMETRES



			MEDICIÓN / *MEASUREMENT*					
Ref.	**Anillo / *Ring* (mm)**	**Contacto *Contact***	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
401	17	WIDIA	5 - 30	0,01	MATE	MADERA	XB1530	**113,12**
402	17	WIDIA	25 - 50	0,01	MATE	MADERA	XB2255	**121,58**

MICRÓMETRO INOX DE PROFUNDIDAD
INOX DEPTH MICROMETRES
MICROMÈTRES DE PROFONDEUR



		MEDICIÓN / *MEASUREMENT*					
Ref.	**Varillas *Reading Rod***	**Capacidad / *Range* (mm)**	**Resolución *Resolution* (mm)**	**Acabado *Finishing***	**Estuche / *Pack***	**Cod.**	**€/Unid.**
501	INTERCAMBIABLES	0 - 100	0,01	MATE	MADERA	XC1100	**123,44**

KIT RELOJ ANALÓGICO + BASE MAGNÉTICA
SET WITH MAGNETIC BASE AND DIAL INDICATOR
COFFRET AVEC COMPARATEUR ET SUPPORT MAGNETIQUE



Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.	€/Unid.
212	Reloj comparador analógico / *Dial Indicator*	1	0 - 10 mm.	0,01/0,0005"	Plástico / Plastic	X97150	**167,64**
	Base magnética / *Magnetic base*	1	-	-			

CONJUNTO DE MEDICIÓN DIGITAL PARA TORNERO
TOURNER DIGITAL MEASURING SET
COFFRET MÉSURE DIGITAL POUR TOURNEUR



Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.	€/Unid.
	Calibre digital electrónico / *Inox Digital caliper*	1	0 - 150 mm.	0,01/0,0005"			
213	Reloj comparador digital / *Digital Dial Indicator*	1	0 - 10 mm.	0,01/0,0005"	Plástico / Plastic	X98150	**242,91**
	Base magnética / *Magnetic base*	1	-	-			

CONJUNTO DE MEDICION DIGITAL
DIGITAL MEASURING SET
COFFRET MESURE DIGITAL



Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.	€/Unid.
	Calibre digital electrónico 112-G / *Inox Digital caliper*	1	0 - 150 mm.	0,01/0,0005"			
214	Micrómetro electrónico / *Outside Micrometer*	1	0 - 25 mm.	0,01/0,0005"	Plástico / Plastic	X99100	**199,51**
	Pilas / *Batteries*	2					

CONJUNTO DE MICRÓMETROS INOX EXTERIORES
INOX OUTSIDE MICROMETERS SET
COFFRET MICROMÈTRES EXTERIEURES INOX



		MEDICIÓN / *MEASUREMENT*				
Ref.	Uds. / *Pcs.*	Rango Medición / *Measurement Range*	Resolución / *Resolution* (mm)	Estuche / *Pack*	Cod.	€/Unid.
210	4	0 - 100 mm.	0,01	Madera / Wood	X95100	**182,41**
211	6	0 - 150 mm.	0,01	Madera / Wood	X96150	**326,45**

GALGAS DE ROSCA COMBINADAS, MÉTRICA Y WHITHWORTH
METRIC AND WHITWORTH SCREW PITCH GAUGES
CALIBRES DE FILETAGE PUR MÉTRIQUE ET WHITWORTH



Ref.	Láminas / *Blades*	Uds. / *Pcs.*	Cod.	€/Unid.
1102	52	1	NB1102	**17,16**
1103	58	1	NB1103	**22,18**

GALGAS DE ROSCA COMBINADAS, CÓNCAVAS Y CONVEXAS
CONCAVE AND CONVEX RADIUS GAUGE SETS
JAUGES À RAYONS CONCAVES ET CONVEXES



Ref.	Láminas / *Blades*	Gama / *Range*	Uds. / *Pcs.*	Cod.	€/Unid.
1203	34	R 1,0 - 7,0	1	NB1203	**38,69**
1202	32	R 7,5 - 15,0	1	NB1202	**36,42**
1201	30	R 15,5 - 25,0	1	NB1201	**32,07**

GALGAS DE ESPESORES, LONGITUD 100mm
THICKNESS GAUGE SETS, LENGTH 100mm
JAUGES D´ÉPAISSEUR, LONGEUR 100mm



Ref.	Láminas / *Blades*	Gama / *Range*	Uds. / *Pcs.*	Cod.	€/Unid.
1001	13	0,05 - 1,00	1	NB1001	**6,83**
1002	20	0,05 - 1,00	1	NB1002	**8,39**

ESCUADRAS DE ZINC
SQUARES OF ZINC
EQUERRES DU ZINC



LISA
WITHOUT BASE

TACÓN
WITH BASE

Ref.	Dimensiones / *Size* (mm)	Tipo / *Type*	Sección / *Section* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
901	100 x 70	Lisa / *Without base*	15 x 5	1	NA0901	**11,44**
950	100 x 70	Tacón / *With base*	15 x 5	1	NA0950	**18,71**
902	150 x 100	Lisa / *Without base*	20 x 5	1	NA0902	**12,14**
951	150 x 100	Tacón / *With base*	20 x 5	1	NA0951	**22,14**
903	200 x 130	Lisa / *Without base*	20 x 5	1	NA0903	**18,59**
952	200 x 130	Tacón / *With base*	20 x 5	1	NA0952	**27,19**
904	300 x 175	Lisa / *Without base*	25 x 5	1	NA0904	**19,81**
953	300 x 175	Tacón / *With base*	25 x 5	1	NA0953	**38,39**
905	400 x 230	Lisa / *Without base*	30 x 5	1	NA0905	**25,10**
954	400 x 230	Tacón / *With base*	30 x 5	1	NA0954	**45,80**
906	500 x 280	Lisa / *Without base*	30 x 5	1	NA0906	**28,96**
955	500 x 280	Tacón / *With base*	30 x 5	1	NA0955	**66,52**

TRANSPORTADORES DE ÁNGULOS 0 - 180º
ANGLE PROTRACTORS
RAPPORTEURS



Ref.	Ø mm.	L. Caña (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
975	**80**	120	1	NA0975	**40,98**
976	**120**	150	1	NA0976	**42,93**
977	**150**	200	1	NA0977	**51,54**
978	**200**	300	1	NA0978	**81,71**



COMPASES CIRCULARES DE ACERO FORJADO
ROUGHT STEEL DIVIDERS WITH QUADRANT
COMPAS ACIER FORGE AVEC ARC DE CERCLE



Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.	€/Unid.
601	150	1	Cuadradas / *Square*	NC0601	**23,73**
602	200	1	Cuadradas / *Square*	NC0602	**26,31**
603	250	1	Cuadradas / *Square*	NC0603	**35,68**
604	300	1	Cuadradas / *Square*	NC0604	**42,36**

COMPASES INTERIORES DE ACERO FORJADO
ROUGHT STEEL INSIDE CALIPERS
COMPAS D´INTERIEUR



Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.	€/Unid.
701	150	1	Planas / *Flat*	NC0701	**12,91**
702	200	1	Planas / *Flat*	NC0702	**17,07**
703	250	1	Planas / *Flat*	NC0703	**21,31**
704	300	1	Planas / *Flat*	NC0704	**25,67**

COMPASES EXTERIORES DE ACERO FORJADO
ROUGHT STEELOUTSIDE CALIPERS
COMPAS D´ÉXTERIEUR



Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.	€/Unid.
801	150	1	Planas / *Flat*	NC0801	**13,21**
802	200	1	Planas / *Flat*	NC0802	**17,07**
803	250	1	Planas / *Flat*	NC0803	**21,59**
804	300	1	Planas / *Flat*	NC0804	**25,56**

NOVEDADES N

- DISPENSADOR de sobremesa CERRADO
- Expositores BLISTER RÍGIDO

EW FEATURES N

- *CLOSED desktop DISPENSER*
- *RIGID BLISTER displays*

NOUVEAUTÉS N

- ***DISTRIBUTEUR de bureau FERMÉ***
- ***Expositeurs BLISTER RIGIDE***



DISPLAYS-DISPLAYS







DISPLAYS

SESA TOOLS®

MINI EXPOSITOR
MINI DISPLAY
MINI ÉXPOSITEUR

Expositor MINI 1.830 x 500 x 430 mm



MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

COMBINADO *CONBINED • COMBINÉ*

Art.	Ø (mm)	Uds.	€/Unid.
BROCA DIN 338N HSS-G	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
BROCA GRANITO	3 X 60	5	
	4 X 75	5	
	5 X 85	10	
	6 X 100	15	
	8 X 120	15	
	10X 120	10	
	12 X 150	10	
	SESABOX GRANITO	5	
BROCA JR PORCELANATO	4X85	10	
	5X85	10	
	6X100	15	
	8X125	5	
	10X150	5	
	SESABOX JR 4-5-6-6-8	5	
BROCA ST-2 (SDS-PLUS)	4X110	5	
	5X110	10	
	6X160	15	
	8X160	10	
	10X160	10	
	12X160	5	
	14x200	5	
	16x260	5	
	18x300	5	
CORONAS BIMETAL M42	16	3	
	20	3	
	24	3	
	27	3	
	30	3	
	35	3	
	40	3	
	51	2	
	60	2	
	70	2	
	83	2	
	A1 14-30	3	
	A2T 32-152	3	
Cod. MIN001			**2.131,30**

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

METAL *METAL • MÉTAL*

Art.	Ø (mm)	Uds.	€/Unid.
BROCA DIN 338N HSS-G	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
BROCA DIN 338N HSS-G MANGO REDUCIDO	14	2	
	16	2	
	18	2	
	20	2	
	22	2	
	24	2	
	25	2	
	26	2	
ESTUCHES DE BROCAS	1915314	2	
	194314	2	
	1915333	2	
	194333	2	
	1915015T	2	
	194019T	2	
	1915025T	2	
	194025T	2	
CORONAS BIMETAL M42	16	2	
	20	2	
	24	2	
	27	2	
	30	2	
	35	2	
	40	2	
	51	2	
	60	2	
	70	1	
	83	1	
	A1 14-30	2	
	A2T 32-152	2	
Cod. MIN002			**2.261,13**

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Art.	Ø (mm)	Uds.	€/Unid.
BROCA TORNADO PARED 	3X60	5	
	4X75	5	
	5X85	10	
	6X100	15	
	8X120	10	
	10X120	5	
	12X150	5	
	14X150	3	
BROCA JR PORCELANATO 	4X85	10	
	5X85	10	
	6X100	20	
	8X125	10	
	10X150	5	
	SESABOX JR 4-5-6-6-8	5	
BROCA ST-2 (SDS-PLUS) 	4X110	5	
	5X110	10	
	6X110	15	
	8X160	5	
	10X160	5	
	12X160	5	
	14x200	3	
	16x260	4	
	18x300	3	
PUNTEROS Y CINCELES 	PUNT 250	2	
	CINCEL 250/20	2	
	CINCEL 250/40	2	
	CINCEL 200/40 AZ.	2	
	ACAN. 240/22	2	
	ACAN. ALAS 250/22	2	
	PUNT 280 (MAX)	2	
	PUNT 400 (MAX)	2	
	CINCEL 280/24 (MAX)	2	
	CINCEL 400/24 (MAX)	2	
	CINCEL 300/80 (MAX)	2	
	ACAN. 300/26 (MAX)	2	
	ACAN. ALAS 380/35 (MAX)	2	
Cod. MIN003			**2.035,18**

MINI EXPOSITOR *MINI DISPLAY • MINI ÉXPOSITEUR*

CASH

Art.	Ø (mm)	Uds.	€/Unid.
BROCA DIN 338N HSS-G	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
BROCA DIN 338 N HSS-CO	3,00	20	
	3,50	10	
	4,00	20	
	4,50	10	
	5,00	20	
	6,00	20	
	8,00	20	
	10,00	5	
	12,00	5	
BROCA JR PORCELANATO	4X85	5	
	5X85	10	
	6X100	10	
	8X125	10	
	10X150	5	
	SESABOX JR 4-5-6-6-8	3	
BROCA MADERA 3 PUNTAS	3,00	5	
	4,00	5	
	5,00	5	
	6,00	5	
	8,00	5	
	10,00	5	
	12,00	5	
CORONAS BIMETAL M42	16	3	
	20	3	
	24	3	
	27	3	
	30	3	
	35	3	
	40	3	
	51	2	
	60	2	
	70	2	
	83	2	
	A1 14-30	3	
	A2T 32-152	3	
Cod. MIN004			**1.774,55**

EXPOSITOR SOBREMESA JRB PORCELANATO NEW

BASIC DISPLAY JRB PORCELANIC
ÉXPOSITEUR BASE TABLE JRB CÉRAMIQUE

Expositor MINI 470 x 190 x 140 mm



Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
4,00	85	8	
5,00	85	16	
6,00	100	16	
8,00	125	8	
10,00	150	8	
SET BROCA JR 5 PIEZAS *SET 5 PIECES*		5	
COD. JR061		61	**486,46**

NOTA: Composición con 5 ganchos / *Stand with 5 hooks* / *Présentoirs avec 5 crochets*

EXPOSITOR - DISPENSADOR DE SOBREMESA CERRADO NEW

DISPLAY - CLOSED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU FERMÉ



Calidad / *Quality*		Uds. *Pcs.*	Cod.	€/Unid.
HSS	WHITE *WHITE*	475	EXP01 BW	**517,59**
HSS-G		475	EXP01 AR	**854,17**
HSS-CO 5%		475	EXP01 CO	**1.438,61**
INOX HSS-G	*INOX PROGRESIVA* *PROGRESSIVE INOX*	475	EXP01 IP	**1.497,06**
TIN		475	EXP01 TI	**1.637,15**

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
2,00	50	**4,00**	50	**5,50**	30	**7,00**	20	**8,50**	15	**11,00**	5
3,00	50	**4,50**	40	**6,00**	30	**7,50**	20	**9,00**	10	**12,00**	5
3,50	50	**5,00**	40	**6,50**	30	**8,00**	15	**10,00**	10	**13,00**	5

EXPOSITOR - DISPENSADOR COMBINADO DE SOBREMESA CERRADO

DISPLAY - CLOSED COMBINED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU COMBINÉ FERMÉ

NEW



Composición / *Contains* / *Composition*					Uds. / *Pcs.*	Cod.	€/Unid.
BASIC EXPO	HSS **HSS WHITE**	+	**BASIC**	+ **MADERA**	610	EXP02 BASIC	**553,23**
STANDARD EXPO	HSS-G **HSS G**	+	**GRANITO**	+ **MADERA**	610	EXP02 STANDARD	**863,42**
ADVANCE EXPO	HSS-CO 5% **HSS CO**	+	**TORNADO**	+ **MADERA**	610	EXP02 ADVANCE	**1.477,51**

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
3,00	50	**6,00**	40	**3,00**	50	**6,00**	30	**3,00**	50	**6,00**	30
4,00	50	**8,00**	20	**4,00**	50	**8,00**	15	**4,00**	50	**8,00**	15
5,00	50	**10,00**	10	**5,00**	40	**10,00**	10	**5,00**	40	**10,00**	10
METAL / *METAL / MÉTAL*				**MADERA** / *WOOD / BOIS*				**CONSTRUCCIÓN** / *CONSTRUCTION / CONSTRUCTION*			

BROCA JR PARA PORCELANATO *JR DRILL-BIT FOR PORCELANIC • FORET JR POUR CÉRAMIQUE*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

advance MAXIMO RENDIMIENTO

NEW



Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
3,00	85	10	
4,00	85	10	
4,00	85	10	
5,00	85	10	
5,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
7,00	125	10	
8,00	125	10	
8,00	125	10	
8,00	125	10	
10,00	150	8	
10,00	150	8	
12,00	150	8	
Cod. HR01JR		174	1.139,06

*Composición con 18 ganchos / *Stand with 18 hooks* / *Présentoirs avec 18crochets* *Detalles del producto en la página 35 / *Product information at page 35* / *Info sur le produit á la page 35*

BASIC *BASIC • BASIC*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Basic

DIN 8039



Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01BA		216	447,69

*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 42 / *Product information at page 42* / *Info sur le produit á la page 42*

GRANITO *GRANITO • GRANITO*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

DIN 8039

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01GR	216		**877,04**



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 41 / *Product information at page 41* / *Info sur le produit á la page 41*

TORNADO *TORNADO • TORNADO*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

ADVANCE MAXIMO RENDIMIENTO

DIN 8039

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01TN	216		**1.560,23**



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 39 / *Product information at page 39* / *Info sur le produit á la page 39*

SDS-PLUS CYCLONE *CYCLONE SDS-PLUS • SDS-PLUS CYCLONE*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Basic

DIN 8035 | SDS plus

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01CY	164		1.084,29



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 44 / *Product information at page 44* / *Info sur le produit á la page 44*

SDS-PLUS ST-2 *ST-2 SDS-PLUS • SDS-PLUS ST-2*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

DIN 8035 | PGM | SDS plus

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
4,00	110	8	
5,00	110	8	
6,00	110	8	
8,00	110	8	
10,00	110	8	
6,00	160	8	
6,00	160	8	
8,00	160	8	
8,00	160	8	
10,00	160	8	
12,00	160	8	
14,00	160	5	
16,00	160	5	
18,00	200	5	
8,00	260	5	
10,00	260	5	
12,00	260	5	
14,00	260	5	
16,00	450	4	
18,00	450	4	
20,00	450	4	
Cod. HR01ST	135		1.358,60



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 45 / *Product information at page 45* / *Info sur le produit á la page 45*

SDS-PLUS HURRICANE *HURRICANE SDS-PLUS • SDS-PLUS HURRICANE*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

ADVANCE MAXIMO RENDIMIENTO

DIN 8035 | PGM | SDS plus

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
5,00	110	8	
6,00	110	8	
8,00	110	8	
10,00	110	8	
6,00	160	8	
6,00	160	8	
6,00	160	8	
8,00	160	8	
8,00	160	8	
10,00	160	8	
12,00	160	8	
14,00	160	8	
8,00	210	5	
10,00	210	5	
12,00	210	5	
14,00	210	5	
12,00	260	5	
14,00	310	5	
16,00	310	4	
18,00	450	4	
20,00	450	4	
Cod. HR01HU		138	2.830,99



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 46 / *Product information at page 46* / *Info sur le produit á la page 46*

SDS-MAX STORM *SDS-MAX STORM • SDS-MAX STORM*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

DIN 8035 | PGM | SDS max

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
12,00	340	2	
14,00	340	2	
16,00	340	2	
18,00	340	2	
20,00	340	2	
22,00	340	2	
24,00	340	2	
14,00	540	2	
16,00	540	2	
18,00	540	2	
20,00	540	2	
22,00	540	2	
25,00	540	2	
30,00	570	2	
Cod. HR01SM		28	2.504,12



*Composición con 14 ganchos / *Stand with 14 hooks* / *Présentoirs avec 14 crochets* *Detalles del producto en la página 48 / *Product information at page 48* / *Info sur le produit á la page 48*

PUNTEROS Y CINCELES *CHISELS AND POINTERS • BURINS ET PICS*

CONSTRUCCIÓN *CONSTRUCTION • CONSTRUCTION*

Descripción / Description	L (mm)	Uds. / *Pcs.*	€/Unid.
SDS-PLUS			
Puntero / *Point Chisel*	250	4	
Puntero / *Point Chisel*	250	4	
Cincel / *Flat Chisel*	250 / 20	3	
Cincel / *Flat Chisel*	250 / 20	3	
Cincel ancho / *Spade Chisel*	200 / 40	3	
Acanalador / *Hollow Chisel*	240 / 22	3	
Cincel azulejo / *Tile Chisel*	200 / 40	3	
SDS-MAX			
Puntero / *Point Chisel*	400	3	
Puntero / *Point Chisel*	400	3	
Cincel / *Flat Chisel*	400 / 24	3	
Cincel / *Flat Chisel*	400 / 24	3	
Cincel ancho / *Spade Chisel*	300 / 80	3	
Acanalador / *Hollow Chisel*	300 / 26	3	
Cincel azulejo / *Tile Chisel*	300 / 50	3	
Cod. HR01CP		44	**949,33**



*Composición con 14 ganchos / *Stand with 14 hooks* / *Présentoirs avec 14 crochets*
*Detalles del producto en las páginas 53-54 / *Product information at pages 53-54* / *Info sur le produit á les pages 53-54*

BROCA MADERA 3 PUNTAS
STANDARD BRAD POINT DRILL BIT • FORET 3 POINTES STANDARD

MADERA *WOOD • BOIS*

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
3,00	70	20	
4,00	80	20	
5,00	90	20	
6,00	100	20	
7,00	110	15	
8,00	120	15	
9,00	130	10	
10,00	133	10	
11,00	150	10	
12,00	155	10	
13,00	160	8	
14,00	160	8	
15,00	165	8	
6,00	245	20	
7,00	245	15	
8,00	245	15	
9,00	245	10	
10,00	245	10	
11,00	245	10	
12,00	245	10	
13,00	245	8	
14,00	245	8	
15,00	245	8	
Cod. HR02BL	288		**620,70**



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 82 / *Product information at page 82* / *Info sur le produit á la page 82*

BROCAS PALA B *FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B*

MADERA *WOOD • BOIS*

Ø (mm)	Uds. / *Pcs.*	€/Unid.
6,00	15	
8,00	15	
10,00	15	
12,00	15	
14,00	15	
15,00	15	
16,00	15	
18,00	15	
19,00	15	
20,00	15	
22,00	15	
24,00	15	
25,00	15	
26,00	15	
28,00	15	
30,00	15	
32,00	10	
33,00	10	
34,00	10	
35,00	10	
36,00	10	
38,00	10	
40,00	10	
Cod. HR02PB	310	1.139,32



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 84 / *Product information at page 84* / *Info sur le produit á la page 84*

BROCAS PALA C *FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C*

MADERA *WOOD • BOIS*

Ø (mm)	Uds. / *Pcs.*	€/Unid.
6,00	8	
8,00	8	
10,00	8	
12,00	8	
14,00	8	
15,00	8	
16,00	8	
18,00	8	
19,00	8	
20,00	8	
22,00	8	
24,00	8	
25,00	8	
26,00	8	
28,00	8	
30,00	8	
32,00	8	
33,00	8	
34,00	8	
35,00	8	
36,00	8	
38,00	8	
40,00	8	
Cod. HR02PC	184	787,40



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 85 / *Product information at page 85* / *Info sur le produit á la page 85*

LEWIS *LEWIS • LEWIS*

MADERA *WOOD • BOIS*

Ø (mm)	L (mm)	Uds. / *Pcs.*	€/Unid.
6,00	200	4	
8,00	200	4	
10,00	200	4	
12,00	200	4	
14,00	200	4	
16,00	200	4	
18,00	200	4	
8,00	300	3	
10,00	300	3	
12,00	300	3	
14,00	300	3	
16,00	300	3	
18,00	300	3	
20,00	300	3	
10,00	450	2	
12,00	450	2	
14,00	450	2	
16,00	450	2	
18,00	450	2	
20,00	450	2	
22,00	450	2	
Cod. HR02LE		63	1.781,58



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 88 / *Product information at page 88* / *Info sur le produit á la page 88*

DIN 338N HSS-G ALTO RENDIMIENTO

DIN 338N HSS-G HIGH PERFORMANCE DRILL BIT • DIN 338N HSS-G GRAND PERFORMANCE

NEW

BLISTER RÍGIDO *RIGID BLISTER • BLISTER RIGIDE*

METAL *METAL • MÉTAL*

HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	Uds. / *Pcs.*	€/Unid.
1,00	30	
1,50	20	
2,00	30	
2,50	20	
3,00	30	
3,50	20	
4,00	30	
4,50	20	
5,00	30	
5,50	20	
6,00	30	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03ARB	340	765,32



*Composición con 18 ganchos / *Stand with 18hooks* / *Présentoirs avec 18 crochets* *Detalles del producto en la página 102 / *Product information at page 102* / *Info sur le produit á la page 102*

DIN 338N HSS-G ALTO RENDIMIENTO
DIN 338N HSS-G HIGH PERFORMANCE DRILL BIT • DIN 338N HSS-G GRAND PERFORMANCE

METAL *METAL • MÉTAL*

HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	Uds. / *Pcs.*	€/Unid.
1,00	30	
1,50	20	
2,00	30	
2,50	20	
3,00	20	
3,25	10	
3,50	10	
4,00	30	
4,25	10	
4,50	10	
5,00	30	
5,25	10	
5,50	10	
6,00	30	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03AR	330	664,91



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 103 / *Product information at page 103* / *Info sur le produit á la page 103*

DIN 338N HSS-CO *DIN 338N HSS-CO • DIN 338N HSS-E COBALT*

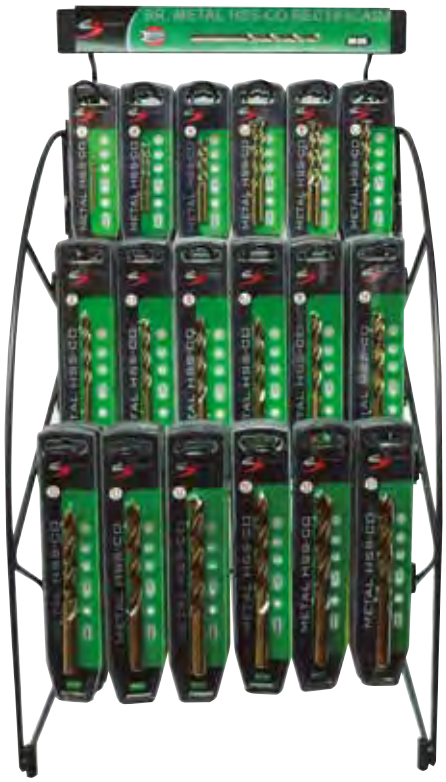
NEW

BLISTER RÍGIDO *RIGID BLISTER • BLISTER RIGIDE*

METAL *METAL • MÉTAL*

HSS-CO 5% | DIN 338 N | 135° | 30°

Ø (mm)	Uds. / *Pcs.*	€/Unid.
1,00	30	
1,50	20	
2,00	30	
2,50	20	
3,00	30	
3,50	20	
4,00	30	
4,50	20	
5,00	30	
5,50	20	
6,00	30	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03COB	340	1.308,25



*Composición con 18 ganchos / *Stand with 18hooks* / *Présentoirs avec 18 crochets* *Detalles del producto en la página 110 / *Product information at page 110* / *Info sur le produit á la page 110*

DIN 338N HSS-CO *DIN 338N HSS-CO • DIN 338N HSS-E COBALT*

METAL *METAL • MÉTAL*

ACERO 900 - 1100 N/mm² | HSS-CO 5% | DIN 338 N | 135° | 30°

Ø (mm)	Uds. / *Pcs.*	€/Unid.
1,00	30	
1,50	20	
2,00	30	
2,50	20	
3,00	20	
3,25	10	
3,50	10	
4,00	30	
4,25	10	
4,50	10	
5,00	30	
5,25	10	
5,50	10	
6,00	30	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03CO	330	1.168,76



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 111 / *Product information at page 111* / *Info sur le produit á la page 111*

DIN 338N HSS-G INOX PROGRESIVA
DIN 338N HSS-G PROGRESSIVE INOX
DIN 338N HSS-G INOX PROGRESSIVE WHITE

SPECIAL STAINLESS STEEL · ESPECIAL INOX · SPÉCIAL ACIER INOXYDABLE

METAL *METAL • MÉTAL*

INOX | HSS-G | DIN 338 N | 130° | 30°

Ø (mm)	Uds. / *Pcs.*	€ €/Unid.
1,00	30	
1,50	20	
2,00	30	
2,50	20	
3,00	20	
3,25	10	
3,50	10	
4,00	30	
4,25	10	
4,50	10	
5,00	30	
5,25	10	
5,50	10	
6,00	30	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03IP	330	1.115,43



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 114 / *Product information at page 114* / *Info sur le produit á la page 114*

DIN 338N HSS-CO INOX
DIN 338N HSS-CO SPECIAL INOX
DIN 338N HSS-CO SPÉCIAL INOX

SPECIAL STAINLESS STEEL ESPECIAL INOX SPÉCIAL ACIER INOXYDABLE

METAL *METAL • MÉTAL*

advance MÁXIMO RENDIMIENTO

INOX | HSS-CO 5% | DIN 338 W | 135° | 40°

Ø (mm)	Uds. / *Pcs.*	€/Unid.
1,00	30	
1,50	20	
2,00	30	
2,50	20	
3,00	20	
3,25	10	
3,50	10	
4,00	30	
4,25	10	
4,50	10	
5,00	30	
5,25	10	
5,50	10	
6,00	30	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HRC03IC	330	2.086,93



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 115 / *Product information at page 115* / *Info sur le produit á la page 115*

DIN 338N HSS-G + TIN *DIN 338N HSS-G + TIN • DIN 338N HSS-G + TiN*

METAL *METAL • MÉTAL*

ACERO 400-800 N/mm² | F | HSS-G | TIN | DIN 338 N | 135° | 30°

Ø (mm)	Uds. / *Pcs.*	€/Unid.
1,00	30	
1,50	20	
2,00	30	
2,50	20	
3,00	20	
3,25	10	
3,50	10	
4,00	30	
4,25	10	
4,50	10	
5,00	30	
5,25	10	
5,50	10	
6,00	30	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HRC03TI	330	1.258,86



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 116 / *Product information at page 116* / *Info sur le produit á la page 116*

DIN338N M/RED. HSS-G *DIN 338N HSS-G REDUCED SHANK • DIN338N HSS-G QUEUE RÉDUITE*

METAL *METAL • MÉTAL*

HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	Uds. / *Pcs.*	€/Unid.
13,00	6	
13,50	3	
14,00	6	
14,50	3	
15,00	5	
15,50	2	
16,00	5	
16,50	2	
17,00	4	
17,50	2	
18,00	4	
18,50	2	
19,00	4	
19,50	2	
20,00	4	
20,50	2	
21,00	4	
21,50	2	
22,00	3	
22,50	2	
23,00	3	
23,50	2	
24,00	3	
24,50	2	
25,00	3	
Cod. HRC03MR	80	2.668,42



*Composición con 23 ganchos / *Stand with 23 hooks* / *Présentoirs avec 23 crochets*
*Detalles del producto en la página 120
Product information at page 120 / *Info sur le produit á la page 120*

DIN 338N M/RED. HSS-Co *DIN 338N HSS-CO REDUCED SHANK • DIN 338N HSS-CO QUEUE RÉDUITE*

METAL *METAL • MÉTAL*

HSS-CO 5% | DIN 338 N | 135° | 30°

Ø (mm)	Uds. / *Pcs.*	€/Unid.
12,00	3	
12,00	3	
13,00	3	
13,50	2	
14,00	3	
14,00	3	
15,00	3	
15,50	2	
16,00	3	
16,00	3	
16,00	3	
16,50	2	
17,00	3	
17,50	2	
18,00	3	
18,00	3	
18,50	2	
19,00	3	
19,50	2	
20,00	3	
20,00	3	
Cod. HR03MC	57	2.588,92



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets* *Detalles del producto en la página 121 / *Product information at page 121* / *Info sur le produit á la page 121*

CORONAS BIMETAL M42
BIMETAL HOLE SAWS M42
SCIES TRÉPAN BIMETAL M42

METAL *METAL • MÉTAL*

ACERO 400-800 N/mm² | F | AL | PL | HSS-CO 8% | 4-6 TPI

Ø (mm)	Uds. / *Pcs.*	€/Unid.
16,00	3	
19,00	3	
20,00	3	
22,00	3	
25,00	3	
27,00	3	
30,00	3	
32,00	2	
33,00	2	
35,00	2	
38,00	2	
44,00	2	
48,00	2	
51,00	2	
Husillo / *Arbor* A0	3	
Husillo / *Arbor* A1	3	
Husillo / *Arbor* A2T	2	
Husillo / *Arbor* A3T	2	
Cod. HR03CB	45	642,80

*Composición con 18 ganchos / *Stand with 18 hooks* / *Présentoirs avec 18 crochets*
*Detalles del producto en la página 163 / *Product information at page 163* / *Info sur le produit á la page 163*



COMBINADO STANDARD
NEW
STANDARD COMBINED
STANDARD COMBINÉE

BLISTER RÍGIDO *RIGID BLISTER • BLISTER RIGIDE*

COMBINADO *CONBINED • COMBINÉ*

	Ø (mm)	Uds. / *Pcs.*	€/Unid.
HSS-G METAL *METAL MÉTAL*	3,00	20	
	4,00	20	
	5,00	30	
	6,00	30	
	8,00	20	
	10,00	10	
GRANITO *GRANITE*	3,00	20	
	4,00	20	
	5,00	30	
	6,00	30	
	8,00	20	
	10,00	10	
MADERA *WOOD BOIS*	3,00	20	
	4,00	20	
	5,00	30	
	6,00	30	
	8,00	20	
	10,00	10	
Cod. HROSTAND	390	792,82	

*Composición con 18 ganchos / *Stand with 18hooks* / *Présentoirs avec 18 crochets*



COMBINADO BROCAS AMARRE 1/4" HEXAGONAL

COMBINED PRODUCT DISPLAY 1/4" HEXAGONAL SHANK DRILL BITS
DPRÉSENTATION COMBINÉE FORETS QUEUE 1/4" HEXAGONALE

HEXAGONAL *HEXAGONAL • HEXAGONAL*

Ø (mm)	Uds. / *Pcs.*	€/Unid.
METAL M2 / *METAL*		
3,00	15	
4,00	15	
5,00	15	
6,00	15	
6,00	15	
8,00	10	
MADERA 3P / *WOOD*		
3,00	15	
4,00	15	
5,00	15	
6,00	15	
6,00	15	
8,00	10	
8,00	10	
CONSTRUCCIÓN JX Y MULTIUSOS/ *CONSTRUCTION*		
JX		
4,00	10	
5,00	10	
6,00	20	
MULTIUSOS		
4,00	10	
6,00	20	
8,00	15	
10,00	10	
Cod. HR06HX	285	**1.667,61**



*Composición con 21 ganchos / *Stand with 21 hooks* / *Présentoirs avec 21 crochets*
*Detalles del producto en las páginas 376-378
Product information at pages 376-378 / Info sur le produit á les pages 376-378

ESTUCHES *SETS • COFFRETS*

Descripción / *Description*	Calidad / *Composition*	Uds. / *Pcs.*	€/Unid.
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-G	4	
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-CO 5%	4	
CRT 19 Pcs. 1 - 10 x 0,5 mm.	TIN	4	
SESABOX 5 Pcs. 3 - 5 - 6 - 8 mm	HSS-G	2	
SESABOX 5 Pcs. 3 - 5 - 6 - 8 mm	HSS-CO 5%	2	
SESABOX 5 Pcs. 3 - 5 - 6 - 8 mm	TIN	2	
Cod. HR03ET		18	933,61

*Composición con 9 ganchos / *Stand with 9 hooks* / *Présentoirs avec 9 crochets*



ESTUCHES SESABOX *SESABOX SET • COFFRETS SESABOX*

Descripción / Description	Uds. / *Pcs.*	Uds. / *Pcs.*	€/Unid.
SESABOX 5 Pcs.	HSS-G	4	
SESABOX 5 Pcs.	HSS-CO 5%	4	
SESABOX 5 Pcs.	HSS TIN	4	
SESABOX 5 Pcs.	TORNADO	4	
SESABOX 5 Pcs.	GRANITO	4	
SESABOX 5 Pcs.	JR	4	
SESABOX 8 Pcs.	HSS-G	3	
SESABOX 8 Pcs.	HSS-CO 5%	3	
SESABOX 8 Pcs.	TORNADO	3	
SESABOX 8 Pcs.	GRANITO	3	
SESABOX 8 Pcs.	MADERA 3P *STANDARD BRAD POINT*	3	
Cod. HR03ES		39	925,11

*Composición con11 ganchos / *Stand with 11 hooks* / *Présentoirs avec 11 crochets*



MUEBLES EXPOSITORES
PRODUCT DISPLAYS • PRÉSENTATION PRODUIT



DOBLE METRO LINEAL "COMBINADO"
"COMBINED" DOUBLE METRE DISPLAY • PRÉSENTOIRE DOUBLE "COMBINÉ"

Cod.	Expositor / *Displays*	€/Unid.	Cod.	Expositor / *Displays*	€/Unid.
HR03AR	**DIN 338 HSS M2** / *DIN 338 HSS M2*	**664,91**	HR01GR	**Granito** / *Granito*	**877,04**
HR03CO	**DIN 338 HSSCO** / *DIN 338 HSSCO*	**1.168,76**	HR01TN	**Tornado** / *Tornado*	**1.560,23**
HR03IP	**DIN 338N HSS-INOX Progresiva** / *DIN 338N HSS Progressive INOX*	**1.115,43**	HR01HU	**SDS-PLUS Hurricane** / *Hurricane SDS-PLUS*	**2.830,99**
HR03MR	**DIN338N M/RED. HSS-G** / *DIN 338N HSS-G Reduced Shank*	**2.668,42**	HR01ST	**SDS-PLUS ST-2** / *SDS-PLUS ST-2*	**1.358,60**
HR03CB	**Corona Bi-Metal** / *Bimetal Hole Saw*	**642,80**	HR01SM	**SDS-MAX Storm** / *Storm SDS-MAX*	**2.504,12**
HR03ET	**Estuches** / *Sets*	**933,61**	HR01CP	**Punteros y Cinceles** / *Chisels and Pointers*	**949,33**
HR03ES	**SESABOX** / *SESABOX*	**925,11**	HR02LE	**Lewis** / *Lewis*	**1.781,58**
HR06HX	**Amarre 1/4" Hexagonal** / *1/4" Hexagonal Shank Drill Bits*	**1.667,61**	HR02PC	**Brocas Pala Tipo C** / *Flat Drill Bit Type C*	**787,40**
HR01JR	**JR para Porcelanato** / *JR Drill-Bit for Porcelanic*	**1.139,06**	HR02BL	**Madera 3 Puntas** / *Standard Brad Point Drill Bit*	**620,70**
MLCOM					**24.195,71**

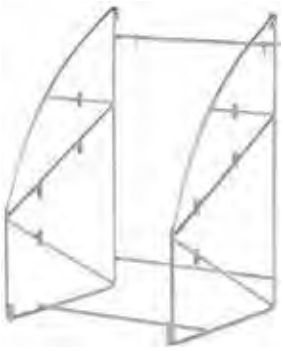
METRO LINEAL "PROFESIONAL"
"PROFESSIONAL" METRE DISPLAY
PRÉSENTOIRE METRE "PROFESSIONNEL"

Cod.	Expositor / *Displays*	€/Unid.
HR03AR	**DIN 338 HSS M2** / *DIN 338 HSS M2*	**664,91**
HR03CO	**DIN 338 HSSCO** / *DIN 338 HSSCO*	**1.168,76**
HR03CB	**Corona Bi-Metal** / *Bimetal Hole Saw*	**642,80**
HR01TN	**Tornado** / *Tornado*	**1.560,23**
HR01ST	**SDS-PLUS ST-2** / *SDS-PLUS ST-2*	**1.358,60**
HR01JR	**JR para Porcelanato** / *JR Drill-Bit for Porcelanic*	**1.139,06**
HR03ES	**SESABOX** / *SESABOX*	**925,11**
HR03ET	**Estuches** / *Sets*	**933,61**
HR02PB	**Brocas Pala Tipo B** / *Flat Drill Bit Type B*	**1.139,32**
MLPRO		**9.532,40**

METRO LINEAL "FERRETERÍA"
"IRONMONGERY" METRE DISPLAY
PRÉSENTOIRE METRE "QUINCAILLERIE"

Cod.	Expositor / *Displays*	€/Unid.
HR03AR	**DIN 338 HSS M2** / *DIN 338 HSS M2*	**664,91**
HR03CO	**DIN 338 HSSCO** / *DIN 338 HSSCO*	**1.168,76**
HR03CB	**Corona Bi-Metal** / *Bimetal Hole Saw*	**642,80**
HR01BA	**Basic** / *Basic*	**447,69**
HR01CY	**SDS-PLUS Cyclone** / *Cyclone SDS-PLUS*	**1.084,29**
HR01JR	**JR para Porcelanato** / *JR Drill-Bit for Porcelanic*	**1.139,06**
HR03ES	**SESABOX** / *SESABOX*	**925,11**
HR02PC	**Brocas Pala Tipo C** / *Flat Drill Bit Type C*	**787,40**
HR02BL	**Madera 3 Puntas** / *Standard Brad Point Drill Bit*	**620,70**
MLFER		**7.480,71**

PIECERÍA *PIECES • PIÈCES*



ESTRUCTURA / ***STRUCTURE*** / ***STRUCTURE***

Cod.	€/Unid.
HR0	**78,75**



CESTA / ***BASKET*** / ***CORBEILLE***

Cod.	€/Unid.
HR0CES	**31,50**



SOPORTE CARÁTULA
LABEL BASE / ***BASE ÉTIQUETTE***

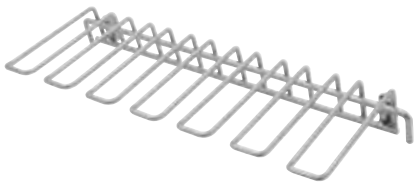
Cod.	€/Unid.
HR0CAR	**14,49**



GANCHO REDONDO
ROUND HOOK / ***CROCHET ROND***

Cod.	€/Unid.
HR0GRD	**2,94**

Hasta fin de existencias / *Until end of stock*
Jusqu´à épuisement des stocks



TIRA DE GANCHOS
HOOK BAND / ***BANDE DE CROCHETS***

Cod.	€/Unid.
HR0T7IN	**11,76**
HR0T6IN	**11,76**

*Para otras composiciones consultar / **For other compositions, request* / **Présentoirs avec 11 crochets*



BASE PARA GANCHO
BASE FOR HOOKS / ***BASE POUR CROCHETS***

Cod.	€/Unid.
HR0BAS	**12,50**

Hasta fin de existencias / *Until end of stock*
Jusqu´à épuisement des stocks

EXPOSITOR INDIVIDUAL
INDIVIDUAL DISPLAY • DISPLAY INDIVIDUEL

METACRILATO 540 x 370 x 735 mm



METAL *METAL • MÉTAL*

Calidad / *Quality*		Uds. / *Pcs.*	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO *HIGH PERFORMANCE*	1.630	3EM01	**3.322,69**
HSS	WHITE *WHITE*	1.630	3EM02	**2.028,42**
HSS-CO 5%		1.630	3EM03	**5.702,53**
HSS-G	INOX	1.630	3EM04	**5.752,66**
HSS-CO 5%	INOX	1.630	3EM05	**10.760,76**
TIN		1.630	3EM06	**6.334,02**

Contenido / *Contains* / *Contenu*

Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	40	**4,00**	160	**6,50**	40	**10,00**	50
1,50	40	**4,25**	70	**7,00**	40	**10,50**	20
2,00	70	**4,50**	60	**7,50**	40	**11,00**	20
2,50	80	**5,00**	150	**8,00**	40	**11,50**	20
3,00	140	**5,25**	50	**8,50**	40	**12,00**	25
3,25	60	**5,50**	70	**9,00**	25	**12,50**	20
3,50	140	**6,00**	80	**9,50**	20	**13,00**	20
						TOTAL	**1.630**

EXPOSITOR COMBINADO HSS-G + HSS-CO
HSS-G + HSS-CO COMBINATED DISPLAY
DISPLAY COMBINÉ HSS-G + HSS-CO

METACRILATO 540 x 370 x 735 mm



METAL *METAL • MÉTAL*

Calidad / *Quality*		Uds. / *Pcs.*	Cod.	€/Unid.
HSS-G	HSS-CO 5%	1.630	3EM08	**4.467,97**

Contenido / *Contains* / *Contenu*

HSS-G			
Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	20	**6,50**	20
1,50	20	**7,00**	20
2,00	40	**7,50**	20
2,50	40	**8,00**	20
3,00	70	**8,50**	20
3,25	30	**9,00**	15
3,50	70	**9,50**	10
4,00	80	**10,00**	25
4,25	40	**10,50**	10
4,50	30	**11,00**	10
5,00	80	**11,50**	10
5,25	30	**12,00**	15
5,50	40	**12,50**	10
6,00	40	**13,00**	10
		TOTAL	**845**

HSS-CO 5%			
Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	20	**6,50**	20
1,50	20	**7,00**	20
2,00	30	**7,50**	20
2,50	40	**8,00**	20
3,00	70	**8,50**	20
3,25	30	**9,00**	10
3,50	70	**9,50**	10
4,00	80	**10,00**	25
4,25	30	**10,50**	10
4,50	30	**11,00**	10
5,00	70	**11,50**	10
5,25	20	**12,00**	10
5,50	30	**12,50**	10
6,00	40	**13,00**	10
		TOTAL	**785**

EXPOSITOR COMBINADO
COMBINATED DISPLAY • DISPLAY COMBINÉ

METAL *METAL • MÉTAL*

Uds. / *Pcs.*	Cod.	€/Unid.
1.630	3EM07	**4.912,61**

METACRILATO
540 x 370 x 735 mm



Contenido / *Contains* / *Contenu*

HSS-G		HSS-CO 5%	
Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	10	1,00	10
1,50	10	1,50	10
2,00	40	2,00	10
2,50	40	2,50	10
3,00	90	3,00	20
3,25	30	3,25	10
3,50	90	3,50	20
4,00	90	4,00	20
4,25	40	4,25	10
4,50	30	4,50	10
5,00	90	5,00	20
5,25	20	5,25	10
5,50	40	5,50	10
6,00	40	6,00	10
6,50	10	6,50	10
7,00	10	7,00	10
7,50	10	7,50	10
8,00	10	8,00	10
8,50	10	8,50	10
9,00	10	9,00	5
9,50	5	9,50	5
10,00	20	10,00	10
10,50	5	10,50	5
11,00	5	11,00	5
11,50	5	11,50	5
12,00	10	12,00	5
12,50	5	12,50	5
13,00	5	13,00	5
TOTAL	780	TOTAL	280

HSS-G INOX		TIN	
Ø (mm)	Uds. / *Pcs.*	Ø (mm)	Uds. / *Pcs.*
1,00	10	1,00	10
1,50	10	1,50	10
2,00	10	2,00	10
2,50	20	2,50	10
3,00	20	3,00	10
3,25	10	3,25	10
3,50	20	3,50	10
4,00	30	4,00	20
4,25	10	4,25	10
4,50	10	4,50	10
5,00	30	5,00	10
5,25	10	5,25	10
5,50	10	5,50	10
6,00	20	6,00	10
6,50	10	6,50	10
7,00	10	7,00	10
7,50	10	7,50	10
8,00	10	8,00	10
8,50	10	8,50	10
9,00	5	9,00	5
9,50	5	9,50	5
10,00	10	10,00	10
10,50	5	10,50	5
11,00	5	11,00	5
11,50	5	11,50	5
12,00	5	12,00	5
12,50	5	12,50	5
13,00	5	13,00	5
TOTAL	320	TOTAL	250

EXPOSITORES ROSCADO MANUAL
HAND THREADING DISPLAY
DISPLAY FILETAGE MANUEL

METACRILATO 390 x 155 x 235 mm

ROSCADO *THREADING • FILÉTAGE*

HSS-G



Cod.	Descripción / *Description*	Uds. / *Pcs.*	€/Unid.
	Giramachos con Criqué / *Tap Holder with Ratchet / Porte Tarauds*		
1R10001	**Gr. 1/C**	3	
1R10002	**Gr. 2/C**	2	
	Juegos de Machos / *Hand Taps / Tarauds À Main*		
2R27326	**M3 x 0,5**	5	
2R27330	**M4 x 0,7**	5	
2R27334	**M5 x 0,8**	5	
2R27338	**M6 x 1,0**	10	
2R27342	**M8 x 1,25**	5	
2R27346	**M10 x 1,50**	5	
2R27350	**M12 x 1,75**	5	
	Cojinetes / *Round Dies / Filières Rondes*		
4R27434	**M5 x 0,8 - 20 x 7**	3	
4R27438	**M6 x 1,0 - 20 x 7**	3	
4R27442	**M8 x 1,25 - 25 x 9**	3	
4R27446	**M10 x 1,50 - 30 x 11**	3	
4R27450	**M12 x 1,75 - 38 x 14**	3	
COD. 19RAJV		60	**1.243,86**

EXPOSITORES MACHOS ANCLAJE 1/4”
1/4” SHANK TAPS DISPLAY
PRÉSENTOIR TARAUDS MÉCHE 1/4”

METACRILATO 190 x 190 x 175 mm

ROSCADO *THREADING • FILÉTAGE*

HSS-G



Descripción / *Description*	Uds. / *Pcs.*	€/Unid.
Machos / *Taps / Tarauds*		
M3	10	
M4	10	
M5	10	
M6	10	
M8	10	
M10	10	
Brocas / *Drill Bits / Forets*		
2,5 mm.	10	
3,3 mm.	10	
4,2 mm.	10	
5,0 mm:	10	
6,8 mm.	10	
8,5 mm.	10	
Cod. 3R48960	120	**990,26**

EXPOSITORES MACHOS MÁQUINA
MACHINE TAPS DISPLAY
PRÉSENTOIR TARAUDS MACHINE

ROSCADO *THREADING • FILÉTAGE*

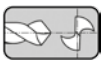
METACRILATO 330 x 140 x 180 mm



Calidad / *Quality*				Mat.	Banda *Ring*	Nº Filas *Rows Nº*	€/Unid.	Contenido / *Contains / Contenu* M3	M4	M5	M6	M8	M10	M12	TOTAL
PM	HL	DIN 371/376	FORM B	INOX		1	405,57	1	1	2	2	2	1	1	10
PM	HL	DIN 371/376	FORM C/35º	INOX		1	359,70	1	1	2	2	2	1	1	10
HSS-E-V3	TIN	DIN 371/376	FORM B		MULTIUSOS	1	243,88	1	1	2	2	2	1	1	10
HSS-E-V3	TIN	DIN 371/376	FORM C/35º		MULTIUSOS	1	266,85	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM B	ACERO 900-1100 N/mm²		1	220,75	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM C/40º	ACERO 900-1100 N/mm²		1	270,24	1	1	2	2	2	1	1	10
PM	FUTURA	DIN 371/376	FORM B	ACERO 1100-1400 N/mm²		1	355,96	1	1	2	2	2	1	1	10
PM	FUTURA	DIN 371/376	FORM C/40º	ACERO 1100-1400 N/mm²		1	399,84	1	1	2	2	2	1	1	10
PM	ALUSPEED	DIN 371/376	FORM B	AL		1	302,39	1	1	2	2	2	1	1	10
PM	ALUSPEED	DIN 371/376	FORM C/45º	AL		1	330,84	1	1	2	2	2	1	1	10
HSS-CO 5%	TIN	DIN 371/376	FORM B	ACERO 400-800 N/mm²		1	254,94	1	1	2	2	2	1	1	10
HSS-CO 5%	TIN	DIN 371/376	FORM C/35º	ACERO 400-800 N/mm²		1	281,19	1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM C	ACERO 400-800 N/mm²		2	254,50	2	2	4	4	4	2	2	20
HSS-CO 5%		DIN 371/376	FORM B	ACERO 400-800 N/mm²		3	403,99	3	3	6	6	6	3	3	30
HSS-CO 5%		DIN 371/376	FORM C/35º	ACERO 400-800 N/mm²		3	475,44	3	3	6	6	6	3	3	30
COD. 3R48932					TOTAL FILAS	20	4.826,07							TOTAL PZAS	200

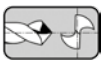
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FILOS DE CORTE / *SHARPENED* / *AFFUTAGE*


PUNTA CONVENCIONAL
CONVENTIONAL POINT
POINTE UNIVERSEL

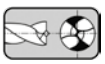

PUNTA SPLIT POINT
SPLIT POINT
AFFUTAGE EN CROIX


GEOMETRÍA RECTA
STRAIGHT HEAD GEOMETRY
GEOMÉTRIE DROITE


PUNTA FILO CORREGIDO
LIP CORRECTION
LÉVRE CORRIGÉ


PUNTA PLACA DE CARBURO
CARBIDE TIPPED
POINTE CARBURE


GEOMETRÍA RADIAL
RADIAL HEAD GEOMETRY
GEOMÉTRIE RADIALE


PUNTA CENTRADORA
CENTERING POINT
POINTE À CENTRER


CORTE AL CENTRO 2 DIENTES
CENTER CUTTING 2 FLUTES
2 DENTS ET COUPE AU CENTRE


CORTE AL CENTRO 3 DIENTES
CENTER CUTTING 3 FLUTES
3 DENTS ET COUPE AU CENTRE


CORTE AL CENTRO 4 Ó MÁS DIENTES
CENTER CUTTING 4 OR MORE FLUTES
4 DENTS OU PLUS ET COUPE AU CENTRE

CORTES / *CUTS* / *DENTS*



Nº DE CORTES
Nº OF CUTS / Nº DE DENTS.
2Z / 3Z / 4Z / 3Z - 5Z / 4Z - 6Z



DIENTES POR PULGADA
TOOTH PER INCH
DENT PAR POUCE



DIENTES POR PULGADA
TOOTH PER INCH
DENT PAR POUCE



DENTADO DE ACABADO TIPO N
N FINISHING
FINITION N



DENTADO PARA GRAN DESBASTE TIPO NR
NR GRINDING
NR DÉGROSSISSAGE



DENTADO PARA DESBASTE FINO TIPO NRF
NR-F FINE GRINDING
NR-F DÉGROSSISMENT FIN



DENTADO PARA GRAN DESBASTE EN MATERIALES DUROS
COARSE ROUGHING FOR HARD METALS
EBAUCHE GROSSIÈRE POUR MATÉRIAUX DURS



DENTADO PARA DESBASTE FINO EN MATERIALES DUROS
FINE PITCH ROUGHING FOR HARD MATERIALS
EBAUCHE PAS FIN POUR MATÉRIAUX DURS

TIPO ROSCA / *THREAD TYPE* / *TYPE FILETAGE*



FORMA A
A FORM
FORME A



FORMA D
D FORM
FORME D



FORMA B-AZ
B-AZ FORM
FORME B-AZ



FORMA B
B FORM
FORME B



FORMA C/º
C/º FORM - FORME C/º
C/15º - C/35º - C/39º - C/40º - C/50º



FORMA COJINETE A
DIES FORM A
FILIÉRE FORME A



FORMA C
C FORM
FORME C

ÁNGULOS HÉLICES / *HELIX ANGLES* / *ANGLE D´HÉLICE*



HÉLICE ÁNGULO º
º HELIX ANGLE
ANGLE D´HELICE º
8º / 30º / 35º / 40º / 45º



HÉLICE TIPO "S"
"S" TYPE HELIX
HÉLICE TIPE "S"

ANGULOS DE PUNTA / *POINT ANGLES* / *ANGLES POINTES*



ÁNGULO PUNTA º
º TIP ANGLE
ANGLE DE POINTE º
118º / 120º / 130º / 135º / 140º

ÁNGULO DE ASIENTO Y AVELLANADO / *ANGLES* / *ANGLES*



35º / 60º / 90º / 180º

MANGOS / *SHANK TYPES* / *QUEUES*



SDS MAX
SDS MAX
SDS MAX


MANGO CILÍNDRICO
STRAIGHT SHANK
QUEUE CYLINDRIQUE


MANGO CÓNICO
MORSE TAPER SHANK
QUEUE CONIQUE



SDS PLUS
SDS PLUS
SDS PLUS


MANGO HEXAGONAL
HEXAGONAL SHANK
QUEUE HEXAGONALE


MANGO MÁQUINA NEUMÁTICA
PNEUMATIC MACHINE SHANK
QUEUE MACHINE PNEUMATIQUE


SDS TOP
SDS TOP
SDS TOP



MANGO HEXAGONAL 1/4
HEXAGONAL SHANK 1/4
QUEUE HEXAGONALE 1/4



ANCLAJE WELDON DIN 1835B
WELDON SHANK DIN 1835B
QUEUE WELDON DIN 1835B


MANGO 3 PLANOS
3 FLAT SHANK
QUEUE 3 PLANS


MANGO REBAJADO
REDUCED SHANK
QUEUE RÉDUITE



ANCLAJE WELDON 19,00
WELDON SHANK 19,00
QUEUE WELDON 19,00

TOLERANCIAS / *TOLERANCES* / *TOLERANCES*



6H / 7H / 6g / 6e / 2B / ISO2X / 3B / ISO1 - 4H
ISO2 - 6H / 6H + 0,1mm / 6HX / 6GX

SISTEMAS ANCLAJE / *ANCHOR SYSTEMS* / *SYSTÈME ANCRAGE*



SISTEMA 1:8
1:8 SYSTEM
SYSTÈME 1:8



SISTEMA M16
M16 SYSTEM
SYSTÈME M16



SISTEMA M14
M14 SYSTEM
SYSTÈME M14



DIN 138
DIN 138
DIN 138

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OTROS ICONOS / *OTHER ICONOGRAPHY* / *AUTRE ICONOGRAPHIE*

- REFRIGERACIÓN / *COOLING* / *REFROIDISSEMENT*
- SIN REFRIGERACIÓN / *NO COOLING* / *SANS RÉFROIDISSEMENT*
- CORTE IZQUIERDA / *LEFT HAND* / *COUP À GAUCHE*
- PERCUSION / *PERCUSSION* / *PERCUSSION*
- SIN PERCUSIÓN / *NO PERCUSSION* / *NON PERCUSSION*
- ALTURA DE SEGMENTO / *SEGMENT HEIGHT* / *HAUTEUR SEGMENT*
- PGM / *PGM* / *PGM*
- RPM / *RPM* / *RPM*

CALIDAD HERRAMIENTA Y RECUBRIMIENTOS / *TOOL COMPOSITION AND COATINGS* / *CALITÉ OUTILS ET RECOUVREMENTS*

- HSS-G — ACERO RÁPIDO HSS-G (M2) / *HIGH SPEED STEEL HSS-G (M2)* / *ACIER RAPIDE HSS-G (M2)*
- HSS-CO 8% — ACERO RÁPIDO COBALTO 8% (M42) / *HIGH SPEED 8% COBALT STEEL (M42)* / *ACIER RAPIDE COBALT 8% (M42)*
- TIALN — NITRURO DE TIT. ALUMINIO (RECUBRIMIENTO) / *TITANIUM ALUMINIUM NITRIDE* / *NITRURE DE TITANE ALUMINIUM*
- HSS — ACERO RÁPIDO HSS / *HIGH SPEED STEEL HSS* / *ACIER RAPIDE HSS*
- HSS-R — LAMINADO / *ROLL FORGED* / *LAMINÉ*
- TIN — NITRURO DE TITANIO (RECUBRIMIENTO) / *TITANIUN NITRIDE (COATING)* / *NITRURE DE TITANE (RECOUVREMENT)*
- HSS-CO 5% — ACERO RÁPIDO COBALTO 5% (M35) / *HIGH SPEED 5% COBALT STEEL (M35)* / *ACIER RAPIDE COBALT 5% (M35)*
- MD — METAL DURO - CARBURO DE TUNGSTENO / *HARD METAL - CARBURE TUNGSTEN* / *METAL DUR - CARBURE TUNGSTÉNE*
- VAP — VAPORIZADO (TRATAMIENTO) / *VAPORIZED (TREATMENT)* / *VAPORISÉ (TRAITEMENT)*
- MDI — METAL DURO INTEGRAL / *HARD METAL INTEGRAL* / *METAL DUR PLEIN*
- PM — PULVIMETALÚRGICO / *POWDER METALURGY* / *MÉTALLURGIE DES POUDRES*
- HSS-E-V3 — ACERO RÁPIDO VANADIO 3% / *HIGH SPEED STEEL 3% VANADIUM* / *ACIER RAPIDE VANADIUM 3%*
- ALTIN — NITRURO DE TITANIO ALUMNIO / *TITANIUM ALUMINIUM NITRIDE* / *NITRURE DE TITANE ALUMINIUM*
- ALCrN — NITRURO DE CROMO ALUMINIO / *ALUMINUM CHROMIUM NITRIDE* / *NITRURE DE CHROME ALUMINIUM*
- HL — HARD LUBE / *HARD LUBE* / *HARD LUBE*
- FUTURA — FUTURA / *FUTURA* / *FUTURA*
- ALUSPEED — ALUSPEED / *ALUSPEED* / *ALUSPEED*

APLICACIONES CONSTRUCCIÓN / *APLICATIONS CONSTRUCTION* / *APLICATIONS CONSTRUCTION*

- HORMIGÓN REFORZADO / *REINFORCED CONCRETE* / *BÉTON ARMÉ*
- HORMIGÓN / *CONCRETE* / *BÉTON*
- HORMIGÓN BLOQUE / *CONCRETE BLOCK* / *BRIQUE BÉTON*
- PIEDRA NATURAL - GRANITO - MÁRMOL / *NATURAL STONE - GRANITE - MARBLE* / *PIERRE NATURELLE*
- PIEDRA ARTIFICIAL / *ARTIFICIAL STONE* / *PIERRE ARTIFICIELLE*
- CERÁMICA - PORCELANATO - GRES / *CERAMIC - GRES - HARD TILE* / *CÉRAMIQUE - GRÈS*
- VIDRIO / *GLASS* / *VERRE*
- LADRILLO / *BRICK* / *BRIQUE*
- TEJA / *TILE* / *TILE*
- MAMPOSTERÍA / *PLYWOOD* / *MAÇONNERIE*
- MULTIUSOS / *MULTIPURPOSE* / *MULTIMATÉRIL*
- PVC - ACRÍLICO / *PVC* / *PVC*
- MADERA / *WOOD* / *BOIS*
- AGLOMERADO / *SOFTWOOD* / *AGGLOMÉRÉS*
- CONTRACHAPADO / *PLYWOOD* / *CONTRAPLAQUÉ*

APLICACIONES METAL / *METAL APLICATIONS* / *APLICATIONS MÉTAL*

- ACERO 400-800 / *STEEL 400-800* / *ACIER 400-800*
- AL — ALUMINIO / *ALUMINIUM* / *ALUMINIUM*
- INOX — INOX / *STAINLESS STEEL* / *INOX*
- TI — TITANIO / *TITANIUM* / *TITANIUM*
- ACERO 800-1100 / *STEEL 800-1100* / *ACIER 800-1100*
- CU — COBRE / *COPPER* / *CUIVRE*
- SP — ALEACIONES ESPECIALES / *SPECIAL ALLOYS* / *ALLIAGES SPÉCIAUX*
- LT — LATÓN / *BRASS* / *LAITON*
- ACERO 1100-1400 / *STEEL 1100-1400* / *ACIER 1100-1400*
- F — FUNDICIÓN / *CAST IRON* / *FONTE*
- PL — PLÁSTICO / *PLASTIC* / *PLASTIQUE*

ENVASES / *PACKAGINGS* / *EMBALLAGES*

- BLISTER / *BLISTER* / *BLISTER*
- COLGADOR / *CLIP* / *CLIP*
- PETACA / *PACK* / *PACK*
- TUBO / *TUBE* / *TUBE*

CARACTERÍSTICAS DEL ACERO
CHARACTERISTICS OF STEEL
CARACTERISTIQUES DE L'ACIER

HSS

Acero rápido con buena tenacidad y rendimiento para herramientas de corte.

High Speed Steel with good toughness and good performance for cutting tools.

Acier rapide avec une bonne ténacité et une bonne performance pour les outils de coupe.

HSS-G

Acero rápido de gran rendimiento y buena tenacidad, para el trabajo en materiales hasta 850 N/mm².

Very high performance HSS with good toughness, for milling and cutting of materials up to 850 N/mm².

Acier rapide à haut rendement et bonne ténacité, pour le broyage et le coupe des matériaux jusqu'à 850 N/mm².

HSS-CO 5%

Acero rápido de gran rendimiento y buena tenacidad, para el fresado de materiales hasta 1200 n/mm²

Very high performance HSS with good toughness, for milling of materials up to 1200 n/mm²

Acier rapide à haut rendement et bonne ténacité, pour le broyage des matériaux jusqu'à 1200 n/mm²

HSS-CO 8%

Acero rápido de excelente rendimiento, buena tenacidad y gran resistencia a la temperatura. para el fresado de materiales de gran dureza.

Extra high performance HSS with good toughness and great temperature resistence. For milling of hard materials.

Acier rapide à excellent rendement, bonne ténacité et haute résistance à la température. Pour l'usinage de matériaux très durs.

HSS-E-V3

Acero rápido de gran rendimiento y buena tenacidad. especialmente usado en piezas de gran diámetro y fresas de disco.

HSS with high performance and good toughness. Applicable for tools of big diameters and for face milling cutters.

Acier rapide à haut rendement et bonne ténacité, notamment utilisé dans les pièces à grand diamètre et fraises de disque.

PM

Acero rápido pulvi-metalúgico. estructura homogénea, gran estabilidad y mayor vida útil de las herramientas. para trabajar materiales muy duros.

Powder metallurgical HSS, extra high performance. Homogeneous structure, more stability and longer life for tools. For very hard materials.

Acier rapide pulvimétallurgique. Structure homogène, grande stabilité et durée de vie des outils prolongée. Pour l'usinage de matériaux très durs.

MDI

Aleación sinterizada de Carburo de Tungsteno, de gran dureza, estabilidad y resistencia al desgaste, que permite trabajar a velocidades muy altas y en grandes producciones.

Sintered alloy of Tungsten Carbide, with great hardness, excellent stability and resistance to wear, which allows working at very high speeds and in large productions.

Alliage fritté de carbure de tungstène, avec une grande dureté, une excellente stabilité et une résistance à l'usure, ce qui permet de travailler à des vitesses très élevées et dans les grandes productions.

RECUBRIMIENTOS
COATINGS
REVETEMENTS

TIALN

Recubrimiento que aumenta la resistencia, la dureza y la oxidación a altas temperaturas. Permite trabajar a altas velocidades sin refrigerar.

Increases resistance, hardness and high temperature oxidation. It allows high speed without cooling.

Revêtement qui accroît la résistance, la dureté et l'oxydation à des températures élevées. Possibilité de travail à des vitesses élevées sans réfrigérer.

ALTIN

Mayor contenido en Al que el TiAlN. Aumenta ligeramente la dureza respecto a éste.

With more Al than TiAlN. Lightly increases hardness.

Teneur plus importante que celle du "TIALN".

ALCrN

Recubrimiento con excelente resistencia a la tracción en caliente.

Great tensile strength and excellent hot hardness.

Revêtement avec excellente résistance à la traction à chaud.

TIN

Disminuye el coeficiente de fricción, aumenta la vida útil de la herramienta.

More sliding properties and tool life increase.

Diminution du coefficient de frottement, prolongation de la durée de vie utile de l'outil.

HL

Disminuye mucha la fricción. Gran adhesión del recubrimiento en todo tipo de materiales.

Very good sliding properties. Great adhesión to all kind of tools.

Réduction considérable des frottements.

FUTURA

Mejora la dureza, disminuye la fricción y aumenta la resistencia química.

Increases hardness, better sliding properties and chemical resistance.

Amélioration de la dureté, diminution des frottement et accroissement de la résistance chimique.

ALUSPEED

Recubrimiento antiadherente AlSi al 10%. Propiedades auto-lubricantes y muy buena evacuación de viruta debido a su baja fricción.

Better sliding properties. AlSi 10% coating. Low friction coefficient and chip extraction.

Revêtement anti-adhésif "ALSI" à 10 % des propriétés auto-lubrifiantes et très bonne évacuation des copeaux en raison de sa faible friction.

VAP

Recubrimiento PVD, mayor vida útil de la herramienta y mayor productividad con menor coste.

PVD coating: longer tool life and higher productivity at a lower cost.

Revêtement PVD: durée de vie outils prolongée et et une meilleure productivité à moindre coût de l'outil.

CONDICIONES GENERALES DE VENTA

GENERAL CONDITIONS OF SALES • CONDITIONS GENERALES DE VENTE

1º. CONDICIONES DE PAGO

- La forma de pago será adecuada a la ley vigente en cada país. En el mercado nacional, según la Ley 15/2010 del 05 de Julio de 2010.
- Reposición, mediante cheque o transferencia a los 11días de fecha factura tendrá un Dto. Adicional del 2%.

2º. VENCIMIENTOS FIJOS

En caso de fechas fijas de pago que rebasen los plazos de pago estipulados, giraremos a la fecha fijada pero inmediatamente anterior, según corresponda, siendo el plazo máximo el límite establecido por la ley vigente de cada país.

3º. SEGURO

Las mercancías viajarán siempre por exclusiva cuenta y riesgo del comprador, siendo a cargo del mismo la prima del seguro que se realice, en los casos en los que el cliente desee asegurarla.

4º. RECLAMACIONES

En discrepancias por diferencias observadas en la recepción del material, se atenderán todas aquellas reclamaciones que se planteen dentro de los 8 días siguientes a la recepción del material, no aceptando ninguna devolución sin previo conocimiento de SESA TOOLS, S.A.

5º. CONDICIONALIDAD

La aceptación de las mercancías sin el rechazo inmediato por parte del comprador, supone la aprobación de estas condiciones generales de venta y su modificación sólo tendrá validez si consta por escrito la conformidad de SESA TOOLS, S.A.

6º. GARANTIAS

Todas las herramientas del programa de ventas están garantizadas contra cualquier defecto de fabricación y materiales, sin responsabilizarse SESA TOOLS, S.A. de la utilización inadecuada de las mismas. En cualquier caso, nuestra responsabilidad estará limitada al valor de la herramienta suministrada. Nos reservamos el derecho de modificar, sin previo aviso, las dimensiones, calidades de acero y en general todas las características técnicas de las herramientas. No será sustituida ninguna herramienta sin el informe previo de nuestro Departamento de Control de Calidad. Para la elaboración de dicho informe será imprescindible remitir debidamente cumplimentada la ficha de devolución del producto correspondiente.

7º. DEVOLUCIONES

No se admitirá ninguna devolución sin comunicación previa del cliente y es necesario el consentimiento de SESA TOOLS, S.A., estipulando como plazo máximo para atenderlas un **periodo de 30 días** desde la recepción de la mercancía por parte del cliente.

Cualquier devolución deberá ser documentada adjuntando el albarán o factura de venta del material afectado. En caso de tratarse de una devolución **por error en el pedido efectuado por el cliente o no venta**, siendo consentida por SESA TOOLS, S.A., se realizará un cargo de un 15% en factura de abono en concepto de gastos de manipulación, reenvasado, etc.

Siempre deberán realizarse a portes pagados. **No se aceptarán** devoluciones de herramientas enviadas a portes debidos por agencias no autorizadas por SESA TOOLS, S.A.

Para la tramitación de una **devolución de un producto en caso de incidencia**, será necesario que se adjunte un formulario con las condiciones de trabajo, que será proporcionado por SESA TOOLS, S.A.

Una vez recibida la herramienta, nuestro departamento de calidad lo verificará y emitirá el informe correspondiente.

8º. PORTES

PENINSULA Y BALEARES

- Pedidos inferiores a 150 € NETOS por expedición: Portes debidos o cargados en factura, siempre que se utilicen nuestros medios habituales.
- Pedidos superiores a 150 € NETOS: PORTES PAGADOS

CANARIAS, CEUTA Y MELILLA

- PAGADOS, exclusivamente en pedidos superiores a 600 € NETOS, por VÍA MARÍTIMA.
- Otros envíos por paquete postal express, mensajeros, etc., se cargarán en factura los costos de envío, más los gastos de DESPACHO, si los hubiera.

PORTUGAL

- Pedidos inferiores a 150 € NETOS por expedición: Portes debidos o cargados en factura, siempre que se utilicen nuestros medios habituales.
- Pedidos superiores a 150 € NETOS: PORTES PAGADOS.

FRANCIA

- Pedidos inferiores a 300 €: Portes debidos o cargados en factura
- Pedidos superiores a 300 €: PORTES PAGADOS.

9º. IMPORTE MÍNIMO DE PEDIDO

No existe límite mínimo de pedido. A los pedidos inferiores a 50 € se cargará un coste adicional del **10%** sobre factura.

10º. I.V.A.

Todos los precios están sujetos al Impuesto sobre el Valor Añadido, siendo a cargo del cliente el recargo correspondiente.

11º. RESERVA DE DOMINIO

Nuestras ventas se consideran siempre bajo la condición de "RESERVA DE DOMINIO", según el artículo 1.506 del C.C. hasta que se haya hecho efectivo íntegramente el pago de todo lo adeudado.

12º. JURISDICCIÓN COMPETENTE

Para cualquier discrepancia acerca de la interpretación de estas condiciones, o litigio por razón de incumplimiento por cualquiera de las partes, ambas se someterán al fuero de los Juzgados y Tribunales de San Sebastián, con renuncia al que pudiera corresponderles.

1º. TERMS OF PAYMENT

- *Payment shall be made in accordance with the laws in force in each country. Payment in Spain shall be governed by Law 15/2010 of 05 July 2010.*
- *Payment by means of a cheque or bank transfer 11 days after the invoice due date shall be subject to an additional charge of 2%.*

2º. FIXED MATURITIES

In the case of fixed payment dates exceeding the predefined payment deadlines, we shall bill on the date immediately previous to the set date, as applicable, up to the maximum deadline established under the law in force in each country.

3º. INSURANCE

Goods shall be transported at the sole risk of the purchaser, which shall also be responsible for the respective insurance premium in cases where the customer wishes to take out insurance coverage.

4º. COMPLAINTS

In relation to discrepancies detected on delivery of the goods, only complaints filed within 8 days of receipt of the material will be dealt with, and no returned goods will be accepted without the previous knowledge of SESA TOOLS, S.A.

5º. CONDITIONALITY

The acceptance of goods with no immediate rejection by the puchaser implies the approval of these general conditions of sale and the amendment of the same shall only be valid with the written consent of SESA TOOLS, S.A.

6º. GUARANTEES

All sales program tools are guaranteed against any manufacturing and material defects, and SESA TOOLS, S.A. shall not be held liable for any improper use of the same. Furthermore, our liability shall be limited to the value of the tool supplied. We reserve the right to modify the dimensions, steel quality and overall technical characteristics of the tools. No tool shall be replaced without the submission of a report by our quality control department. This report shall only be issued on receipt of the duly completed product rejection sheet for the item in question.

7º. RETURNS

*No return will be accepted without previous communication from the client and the consent of SESA TOOLS, S.A. is required. To attend returns, it´s stipulated a maximum term of **30 days** from the receipt of the goods by the client.*

*Any return must be documented attaching the delivery note or invoice of the affected items. In case of a return **by customer´s mistake placing the order or non-sale**, previously being consented by SESA TOOLS, SA shall be subject to a 15% surcharge for handling, repackaging, etc.*

Returns should always be done free of freight. SESA TOOLS, S.A. ***shall not accept*** *returned tools with freight charged by not authorized agencies.*

For processing of a return of items in ***the event of an incident****, it will be necessary to send attached a form with working conditions. This document will be provided by SESA TOOLS, S.A.*

Once the tool is received, our quality department will verify it and issue the corresponding report.

8º. FREIGHT

THE MAINLAND AND THE BALEARIC ISLANDS

- *Orders below €150 net per shipment: Freight paid or billed by invoice whenever using our habitual means.*
- *Orders above €150 net: FREIGHT INCLUDED.*

THE CANARY ISLANDS, CEUTA AND MELILLA

- *INCLUDED, exclusively for orders of over € 600 net, by SEA.*
- *Other express delivery services via courier, etc., delivery costs will be billed for by invoice, plus shipment costs, if applicable.*

PORTUGAL

- *Orders below €150 net per shipment: Freight paid or billed by invoice whenever using our habitual means.*
- *Orders above €150 net: FREIGHT INCLUDED.*

FRANCE

- *Orders below € 300 net: Freight paid or billed by invoice.*
- *Orders above € 300 net: FREIGHT INCLUDED.*

9º. MINIMUM ORDERS

There is no minimum order limit. Orders of less than € 50 shall be subject to an additional cost of ***10%*** *over the billing.*

10º. I.V.A. (VAT)

All prices are subject to value added tax and the customer shall bear the cost of the same.

11º. RESERVATION OF RIGHT OF OWNERSHIP

Our sales are always conducted under the condition of "RIGHT OF OWNERSHIP" in accordance with article 1506 of the Constitution until full payment of all that is owed has been effected.

12º. JURISDICTION

All disputes arising from the interpretation of these terms or litigation due to non-compliance by either party shall be settled by the courts of the city of San Sebastian, with the express waiver of any other.

1º. CONDITIONS DE PAIEMENT

- *Le mode de paiement sera adapté à la loi en vigueur de chaque pays. Sur le marché national, il sera conforme à la Loi 15/2010 du 05 juillet 2010.*
- *Lors du paiement par chèque ou virement dans les 11 jours à partir de la date de facturation vous aurez droit à une remise supplémentaire de 2%.*

2º. ECHEANCES FIXES

Dans le cas de dates de règlement fixes qui réduiraient les délais de paiement établis, nous procéderons au virement à la date fixe la plus immédiatement antérieure audit délai correspondant, le délai maximum étant la limite établie par la loi en vigueur dans chaque pays.

3º. ASSURANCE

Les marchandises voyageront toujours à la charge et au risque de l'acheteur, qui devra prendre en charge la prime de l'assurance éventuellement souscrite, si le client souhaite assurer ses marchandises.

4º. RECLAMATIONS

En cas de divergences suite à des non-conformités par rapport à la commande constatées lors de la réception du matériel, nous répondrons à toutes les réclamations présentées dans un délai de 8 jours après la réception du matériel, aucun retour de marchandise ne sera accepté sans que SESA TOOLS, S.A. en soit informée au préalable.

5º. CONDITIONS

L'acceptation des marchandises sans leur refus immédiat de la part de l'acheteur implique l'approbation des présentes conditions générales de vente et toute modification de ces dernières ne sera valide que si elle est approuvée par écrit par SESA TOOLS, S.A.

6º. GARANTIES

Tous les outils de notre programme de ventes sont garantis contre tout défaut de fabrication et de matériels, sans que SESA TOOLS, S.A. puisse être tenue pour responsable d'une utilisation inadéquate de ses produits. Dans tous les cas, notre responsabilité est limitée à la valeur de l'outil fourni. Nous nous réservons le droit de modifier sans préavis les dimensions, les qualités d'acier et en général toutes les caractéristiques techniques des outils. Aucun outil ne sera remplacé sans le rapport préalable de notre Département de Contrôle Qualité. Pour l'élaboration dudit rapport il sera indispensable de remplir comme il se doit la fiche de retour du produit concerné.

7º. RETOUR DE MARCHANDISES

Aucun retour ne sera accepté sans une communication préalable du client et le consentement de SESA TOOLS, S.A. est requis. Il est stipulé un délai maximum ***de 30 jours*** *à compter de la réception des marchandises par le client pour y assister.*

Tout retour doit être documenté en joignant le bon de livraison ou la facture des articles concernés. Dans le cas d'un retour ***par erreur dans la commande du client ou de la non-vente****, préalablement consenti par SESA TOOLS, SA, sera soumis à un supplément de 15% pour la manutention, le reconditionnement, etc.*

Les retours doivent toujours être effectués sans fret. SESA TOOLS, S.A. n'acceptera pas de retours d'outils qui arriveraient avec le fret sans payer par l'intermédiaire d'agences non autorisées.

Pour le traitement d'un retour d'articles ***en cas d'incident****, il sera nécessaire d'envoyer ci-joint un formulaire avec conditions de travail. Ce document sera fourni par SESA TOOLS, S.A.*

Une fois l'outil reçu, notre service qualité le vérifie et émet le rapport correspondant.

8º. FRAIS DE PORT

PENINSULE IBERIQUE ET BALEARES

- *Pour les commandes inférieures à 150 € NETS par expédition : Port dû ou inclus dans la facture, à condition d'utiliser nos moyens de livraison habituels.*
- *Pour les commandes supérieures à 150 € NETS : PORT PAYE.*

CANARIES, CEUTA ET MELILLA

- *PORT PAYE exclusivement pour les commandes supérieures à 600 € NETS, par VOIE MARITIME.*
- *Pour les autres modes d'envoi par colis postal express, messagerie, etc., les frais d'envoi, ainsi que les frais d'EXPEDITION, si existantes, seront inclus dans la facture.*

PORTUGAL

- *Pour les commandes inférieures à 150 € NETS par expédition : Port dû ou inclus dans la facture, à condition d'utiliser nos moyens de livraison habituels.*
- *Pour les commandes supérieures à 150 € NETS : PORT PAYE.*

FRANCE

- *Pour les commandes inférieures 300 € : Port dû ou inclus dans la facture*
- *Pour les commandes supérieures à 300 € : PORT PAYE.*

9º. MONTANT MINIMUM DE LA COMMANDE

Il n'y a pas de limite minimum de commande. Un coût additionnel de 10% sur la facture sera appliqué aux commandes inférieures à 50 €.

10º. T.V.A.

Tous les prix sont soumis à la Taxe sur la Valeur Ajoutée, qui sera à la charge du client.

11º. RESERVE DE PROPRIETE

Nos ventes se Font toujours sous la condition de "RESERVE DE PROPRIETE", conformément aux dispositions de l'article 1.506 du C.C. jusqu'au recouvrement effectif et intégral du montant dû.

12º. JURIDICTION COMPETENTE

Pour toute divergence concernant l'interprétation des présentes conditions ou tout litige découlant du non-accomplissement de ses obligations par l'une des parties, les deux parties se soumettront à la juridiction des Tribunaux de San Sebastián, en renonçant à tout autre tribunal.